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September 3, 2014

Contains Confidential Business Information

VIA FEDERAL EXPRESS

Leslie Blake
Remedial Project Manager
US Environmental Protection Agency - Region 5
Superfund Division (SR-6J)
77 W. Jackson Boulevard
Chicago, IL 60604-3590

Re: Amendment to Response of Hach Company to the 104(e) USEPA Requests for Information Sent to Environmental Test Systems, Inc., and the Hach Company - Lane Street Groundwater Contamination Site

Dear Ms. Blake:

This letter and attachments hereto are the amended response of Hach Company ("Hach") to the CERCLA Section 104(e) Request for Information ("RFI") sent to Environmental Test Systems, Inc. ("ETS") dated June 3, 2014 and received on June 6, 2014, and to the RFI sent to Hach Company ("Hach") on June 3, 2014 and received on June 6, 2014. The amendment is necessary to: (1) correct a typographical error in this paragraph (Hach acquired ETS in April 1998, not April 1988); (2) correct a mistake on the top of page 3 (Danaher acquired Hach in July 1999, not early 2000); and (3) to correct errors in paragraph (a) of Response Number 2 that incorrectly states manufacturing operations ceased in 2004; in actuality they ceased in 2002. This amendment contains only changes to the body or the letter response itself; the attachments are unaffected and are not reproduced here.

ETS was merged into Hach in 2001 and no longer exists as a legal entity, although ETS is still a brand used by Hach. For this reason, Hach Company is responding to both the RFI to Hach, and the RFI to ETS. Responses are to the best of Hach's knowledge and belief for the time periods before Hach acquired ETS on April 30, 1998.

Pursuant to an agreement with Jim Morris of USEPA on June 26, 2014, Hach was granted until August 21, 2014, to provide this response for both ETS and Hach. Hach has made diligent

efforts to respond to the RFI and has fully answered all requests herein. Each response is based on information from current Hach employees (several of whom were previously employed by ETS) reasonably expected to have knowledge responsive to the RFI.

Hach has several objections concerning the RFI. These objections are being raised to preserve Hach's rights. Answers, however, are provided notwithstanding and subject to the objections. First, Hach objects to the requirement to provide a certification along with the Response to the Request for Information. Section 104(e) of CERCLA does not provide for such a certification. Further, Hach objects to the phrasing of certain of the questions in the Request for Information. Some of the terms and phrases used in the Request for Information are ambiguous, vague and not defined. Hach has interpreted the questions so that they are not overly broad, unduly burdensome, or requesting information that is either irrelevant to the stated purpose of the Request for Information, is vague or ambiguous, is subject to the attorney-client privilege, or is not reasonably calculated to lead to the discovery of admissible evidence.

Please note that this Response to Request for Information contains Confidential Business Information that should be protected from disclosure to third parties in accordance with CERCLA Section 104(e)(7) and 40 CFR 2. Confidential Business Information is clearly marked to indicate the Confidential Business Information claim.

It is understood the RFI seeks information on whether companies which have owned or operated properties in an industrial park in Elkhart, Indiana could be potentially responsible parties ("PRPs") for Releases of certain hazardous substances at the Lane Street Groundwater Contamination Site in Elkhart, Indiana ("Lane Street Site"). The submission of any information in response to the Request for Information should not be construed to constitute an admission of liability, or waiver of defenses Hach may have for liability at the Lane Street Site.

RESPONSE TO CERCLA RFI

REQUEST NO. 1:

Identify the parcel or parcels related to the Site and delineated in Definition No. 10, above, that you owned or operated, and state the period of time during which you owned or operated the parcel or parcels. At the time you acquired or began operating at the Site, did you know or have reason to know that any hazardous substance was disposed of on, or at the Site? Describe all investigations of the Site you undertook prior to acquiring the Site and all of the facts on which you base the answer to the preceding question.

RESPONSE:

a. Through acquisition of ETS, Hach acquired the Property currently known as 3504 Henke[1] (hereinafter the "Property") in 1998. Prior to that time the Property ownership is believed

[1] The former address for the property was 23575 County Road 106.

by Hach to be as presented in Attachment A. The Property was sold by Hach to RJM Enterprises, LLC on September 7, 2004. ETS has continued to lease a portion of the Property at 3504 Henke for a laboratory and research and development ("R&D"), since 2004. Additionally, for a few months, ETS leased some warehouse space at the Property at 3506 Henke.

b. and c. It is unknown whether at the time ETS acquired the Property (in approximately 1991), ETS conducted any environmental due diligence. Hach has no knowledge of whether ETS was aware of any hazardous substances disposed on the Property, or was aware of hazardous substances present elsewhere in the overall "Site" which is the subject of the RFI. In July 1999, Danaher Corporation acquired Hach, Danaher had a Phase I Site Assessment and Phase II Site Assessment performed, both dated August 1999. The Phase II was performed because the Phase I noted that a former owner/operator of the property had sampled the contents of septic tanks when they were closed in 1992 and the results disclosed some chlorinated solvent materials in the septic tanks. In 1999, conservatively Danaher performed Phase II sampling of soils and groundwater in the area of the former septic tanks. The Phase II concluded localized VOCs detected in the soil and groundwater were either below USEPA or IDEM criteria, or within background levels. Copies of the Phase I and Phase II appear in Attachments B and C.

REQUEST NO. 2:

Describe the nature of your activities or business at the Site, with respect to purchasing, receiving, processing, storing, treating, disposing, or otherwise handling hazardous substances or materials at the Site.

RESPONSE:

a. Activities conducted by ETS and Hach at the 3504 Henke Street Property have included the manufacturing, packaging and shipping of paper test strips (commonly used for swimming pools), and the operation of laboratories for product R&D. Operations from 1991 to 2002 at 3504 Henke included in those described in Attachment D. The manufacturing business was moved to Iowa thereafter. The test strips formerly manufactured by ETS in the 3504 Property were chemically treated with, among other chemicals, inorganic solvents, and two dryer units were operated for drying the test strips.

In response to the RFI, Hach has undertaken an exhaustive examination of ETS' historical use of chemicals and reviewed purchasing records from 1991 to 2002. [redacted] Exemption 4, 5 U.S.C. §552(b)(4)

[redacted]. (*See* Attachment E). A thorough review of ETS and Hach records confirms that none of the chemicals identified by USEPA as Chemicals of Concern ("COCs")[2] at

[2] In various documents, including on its NPL Fact Sheet for Lane Street Groundwater Contamination (April, 2013), its summary of the Lane Street Site (May 2013) and its Lane Street Groundwater Contamination Superfund Site Community Update power point demonstration (May 2013), USEPA indicated the COCs for the Site are: trichloroethylene (TCE), 1, 1, 1 - trichloroethane (1, 1, 1 - TCA), 1, 1 - dichloroethane (1, 1 -DCA), 1, 1 -

the Site were used by ETS or Hach in their manufacturing process, or in R&D or laboratory operations.

Chemicals used by ETS and Hach in their operations at the Property were always properly managed in compliance with environmental laws and there has never been any known or suspected Release of any hazardous substances at or from the ETS or Hach operations. Laboratory chemicals not consumed in the laboratory operations have consisted of very small volumes which are collected and sent off-site in "lab packs" through a service provider. Since 1992, Sanitary wastewaters and the small volumes of process water generated during operations have been discharged to the Elkhart POTW (See Response to No. 4, below). Hach is aware that sampling of septic tanks by a former owner before the tanks were closed and before the time ETS began operations at the property, indicated the presence of COCs in the former septic tanks, however, neither ETS nor Hach ever purchased, used or handled the chemicals found in the septic tanks during that sampling.

Because ETS, which did not acquire the Site until 1991 just before the septic tanks were removed, never used the COCs reported to be present in the septic system in the months before the septic system was closed, those chemicals were present from operations from former owners or operators. As USEPA is aware, the former owners of the 3504 Henke Property, the Dygerts, may have been associated with chlorinated solvent contamination elsewhere in the immediate area of the Site (and the Dygerts owned the 3504 Property from at least 1973 to 1983).

REQUEST NO. 3:

Describe any manufacturing processes used on the Site, give a list of the chemicals utilized in the manufacturing process either as a component employed in the formulation of an object, made for sale or use offsite or onsite, or as a reagent in the manufacturing process, or as an item utilized in maintenance activities.

RESPONSE:

Attachment D contains a list of historic manufacturing and operating processes at the 3504 Henke Street Property and Attachment E identifies the chemicals used in those processes.

REQUEST NO. 4:

Provide a list of any chemical substances produced in the manufacturing processes employed onsite, any chemical substances which become byproducts of the manufacturing process, the chemical composition of any sludges or liquids or other production wastes resulting from the manufacturing process. Summarize in a short narrative the equipment used to treat such waste materials, transport such waste materials or dispose of such waste materials.

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dichloroethylene (1, 1 - DCE), cis - 1, 2 - dichloroethylene (cis - 1, 2-DCE), trans - 1, 2 - dichloroethylene (trans - 1, 2 - DCE) and tetrachloroethylene (PCE).

RESPONSE:

There were no chemical substances ever produced in any manufacturing process and there were no by-products generated, nor sludges generated in the manufacturing process. Small quantities of process waters from laboratory operations were and are currently discharged to the Elkhart POTW and small amounts of laboratory wastes have been generated and disposed offsite. Solid wastes in small-quantity-generator volumes have also been generated and properly handled in accordance with RCRA requirements.

REQUEST NO. 5:

If the manufacturing processes used on the Site involve the utilization of rinse water, give a description of the equipment and transport mechanisms used to segregate hazardous substances from the water before it is discharged into navigable waters through an outfall permitted by a National Pollution Discharge Elimination System (NPDES) permit. Provide copies of all such permits granted in conjunction with Site operations. Describe the composition of any sludge material recovered from the cleanup processes of such rinse waters; give the means used to transport these sludges to disposal points and list 'any or all such deposition locations.

RESPONSE:

The process of manufacturing test strips did not involve use of rinse water, and there has been no NPDES-permitted discharge from the Property. Wastewaters, if any, were discharged to the Elkhart POTW. There were and are no sludges generated.

REQUEST NO. 6:

Did you ever use, purchase, generate, store, treat, dispose, or otherwise handle at the Site any hazardous substances? If the answer to the preceding question is anything but an unqualified "no," identify;

a. In general terms, the nature and quantity of the non-hazardous substances so transported, used, purchased, generated, stored, treated, disposed, or otherwise handled.
b. The chemical composition, characteristics, physical state (e.g., solid, liquid) of each hazardous substance so transported, used, purchased, generated, stored, treated, disposed, or otherwise handled.
c. The persons who supplied you with each such hazardous substance.
d. How each such hazardous substance was used, purchased, generated, stored, treated, transported, disposed or otherwise handled by you,
e. When each such hazardous substance was used, purchased, generated, stored, treated, transported, disposed or otherwise handled by you.
f. Where each such hazardous substance was used, purchased, generated, stored, treated, transported, disposed or otherwise handled by you,

g. The quantity of each such hazardous substance used, purchased, generated, stored, treated, transported, disposed or otherwise handled by you,

RESPONSE:

a. and b. The chemicals used in manufacturing of test strips, R&D and development and laboratory operations are shown in Attachment E. Because neither Hach nor ETS has used COCs identified for the Site, ETS objects to Requests 6(c) - (g) as not relevant, and unduly burdensome.

REQUEST NO. 7:

Identify all federal, state and local authorities that regulated the Site Operator and/or that interacted with the Site Operator. Your response is to address all interactions and in particular all contacts from agencies/departments that dealt with health and safety issues and environmental concerns.

RESPONSE:

Hach has no knowledge of operations at or on the overall Site. With respect to the 3504 Property, Hach objects to this Request as irrelevant and unduly burdensome. Notwithstanding such objection, ETS and Hach operations on the Property have been subject to various state and local regulations and authorities. The authorities with whom ETS has interacted with respect to health, safety and environmental issues include the Department of Treasury (User #SDA-IN-1639 for the use of denatured alcohols), OSHA, the Elkhart POTW, and the Indiana Department of Environmental Management ("IDEM") (Air Permit No. 039-00187).

REQUEST NO. 8:

Describe all occurrences associated with violations, citations, deficiencies, and/or accidents concerning the Site during the time period in which you owned or operated at the Site. Provide copies of all documents associated with such an occurrence.

RESPONSE:

On November 6, 2003 IDEM issued a Notice of Violation for failure to submit a timely annual emission statement for 2002. (*See* Attachment F).

REQUEST NO. 9:

Provide a list of all local, state, and federal environmental permits ever granted for your activities or business at the Site (e.g., RCRA permits, NPDES permits, etc.).

RESPONSE:

From 2000 to 2002 EST had a Department of Treasury Industrial Alcohol User Permit #SDA-IN-1639. ETS had an IDEM Air Permit #039-00187.

REQUEST NO. 10:

Did you ever file a Hazardous Waste Activity Notification under the Resource Conservation and Recovery Act (RCRA)? If so, provide a copy of such notification.

RESPONSE:

It is unknown whether ETS or a previous owner filed a Hazardous Waste Activity Notification.

REQUEST NO. 11:

Did the Site ever have "interim status" under the Resource Conservation or Recovery Act (RCRA)? If so, and the Site does not currently have interim status, describe the circumstances under which the Site lost interim status.

RESPONSE:

Hach has no knowledge of activities at the overall "Site." To the best knowledge of Hach, the Property at 3504 Henke never had interim status.

REQUEST NO. 12:

Provide all reports, information or data related to soil, water (ground and surface), or air quality and geology/hydrogeology at and about the Site. Provide copies of all documents containing such data and information, including both past and current aerial photographs as well as documents containing analysis or interpretation of such data.

RESPONSE:

With the exception of the Phase II testing performed by BBL in August 1999 (Attachment C), Hach does not possess any information or documents responsive to this Request with respect to the overall "Site" or with respect to the 3504 Henke Property, except those made publicly available by USEPA on its website or provided to Hach by IDEM or USEPA in response to Freedom of Information Act Responses.

REQUEST NO. 13:

Describe the acts or omissions of any persons—other than your employees, agents, or those persons with whom you had a contractual relationship—that might have caused the release of hazardous substances at the Site, and identify such persons.

RESPONSE:

Hach is aware that Geocel LLC, 53280 Marina Drive, located upgradient of the Site and the subject Property at 3504 Henke has been identified as the source of vinyl chloride, dichloroethane and other chlorinated solvents which have contaminated groundwater in the area of the Site.

Hach is also aware that Dygert Seating, and its subsequent purchaser, Flexsteel, located at 23542 Cooper Drive and 53381 Marina Drive, also immediately upgradient of the Property, was identified a source of chlorinated solvent contamination in soils and groundwater at the Site.

As previously discussed, according to the Elkhart County Assessor, the Property at 3504 Henke was formerly owned by Century Motor Coach, and before that time (1973-1983) was owned by the Dygert family, and as USEPA is aware, the Dygert Company and its successor, Flexsteel, has been identified as the source of chlorinated solvent contamination at the Site, and the historical operations of these, and other previous owners, could have been sources of contamination found at the Site. These other persons' operations may also be the source of the chlorinated solvents found to present in the septic tanks prior to ETS operations at the site.

REQUEST NO. 14:

Identify all leaks, spills, or releases into the environment of any hazardous substances, pollutants, or contaminants that have occurred at or from the Site. In addition, identify:

a. When such releases occurred;
b. How the releases occurred (e.g. when the substances were being stored, delivered by a vendor, transported or transferred (to or from any tanks, drums, barrels, or recovery units), and treated).
c. The amount of each hazardous substances, pollutants, or contaminants so released;
d. Where such releases occurred;
e. Any and all activities undertaken in response to each such release or threatened release, including the notification of any agencies or governmental units about the release.
f. Any and all investigations of the circumstances, nature, extent or location of each release or threatened release including, the results of any soil, water (ground and surface), or air testing undertaken; and
g. All persons with information relating to these releases.

RESPONSE:

Except as described in Response #13, Hach has no knowledge responsive to this Request.

REQUEST NO. 15:

Was there ever a spill, leak, release, or discharge of hazardous substances into any subsurface disposal system or floor drain inside or under a building located at the Site? If the answer to the preceding question is anything but an unqualified "no", identify:

a. Where the disposal system or floor drains were located;
b. When the disposal system or floor drains were installed;
c. Whether the disposal system or floor drains were connected to pipes;
d. Where such pipes were located and emptied;
e. When such pipes were installed;
f. How and when such pipes were replaced, or repaired; and
g. Whether such pipes ever leaked or in any way released hazardous substances into the environment.

RESPONSE:

Except as described in Response #13, Hach has no knowledge of discharges at the overall Site. Except for discharges to the Elkhart POTW from the 3504 Henke Property after 1992, Hach has no information responsive to this Request. With respect to the Elkhart POTW wastewater system, Hach has no knowledge of the configuration of POTW system drains and piping beneath or adjacent to the Property.

REQUEST NO. 16:

Has any soil ever been excavated or removed from the Site? Unless the answer to the preceding question is anything besides an unequivocal "no", identify:

a. Amount of soil excavated;
b. Location of excavation:
c. Manner and place of disposal and/or storage of excavated soil;
d. Dates of soil excavation;
e. Identity of persons who excavated or removed the soil;
f. Reason for soil excavation;
g. Whether the excavation or removed soil contained hazardous substances and why the soil contained such substances;
h. All analyses or tests and results of analyses of the soil that was removed from the Site;
i. All persons, including contractors, with information about (a) through (h) of this request.

RESPONSE:

Hach does not have knowledge relating to soil removals at the overall "Site " except for general knowledge of investigations and cleanups by IDEM or USEPA and associated with the

Dygert and Geocel cleanups. With respect to historic operations by ETS or Hach at 3504 Henke Street, Hach is unaware that any soils have ever been excavated or removed from that Property.

REQUEST NO. 17:

Provide information and documentation concerning all inspections, evaluations, safety audits, correspondence and any other documents associated with the conditions, practices, and/or procedures at the Site concerning insurance issues.

RESPONSE:

Hach has no knowledge of investigations at the "Site" relating to "insurance issues." With respect to the Property at 3504 Henke Street, Hach objects to this Request as irrelevant, unduly burdensome, and not reasonably related to the purpose of the RFI, which, according to USEPA, is to identify hazardous substances released at the Lane Street Site.

SEYFARTH SHAW LLP
ATTORNEYS

Summary: After extensive investigation of records, Hach has determined neither ETS nor Hach ever used any of the COCs at the Lane Street Site in their manufacturing processes or in research and development or laboratory operations.

Hach wishes to cooperate fully with your investigation and has fully and completely satisfied its obligations to respond to the CERCLA Section 104(e) RFI. If, subsequent to this response, the Company identifies additional information responsive to the RFIs for ETS or Hach, it will supplement this response.

For the reasons set forth above, it is the position of Hach that neither ETS nor Hach has any liability at the Lane Street Site. If you have any questions regarding this amended response to the RFI, please contact me directly.

Sincerely,

SEYFARTH SHAW LLP

Jeryl Olson, Esq.

cc: James Morris, Esq.
Associate Regional Counsel
US Environmental Protection Agency, Region 5
77 W. Jackson Boulevard
Chicago, IL 60604

Ephraim Starr
Vice President and General Counsel, Hach Company

SEYFARTH SHAW LLP
ATTORNEYS

Attachment A

Ownership/Operator History of 3504 Henke Street

SEYFARTH SHAW LLP
ATTORNEYS

Ownership/Operator History of 3504 Henke Street

3504 Henke (Formerly 23575 County Road 106, Building Number 1)

Owner	Date of Ownership
RJM Enterprises, LLC (Riverside Tool Corporation)	2004 - present
Hach Company	1998 - 2004
Environmental Test Systems, Inc.	1991 - 1998
G & S Properties	1986 - 1991
Ludwig Allan J. & David J. Miller	1986 - 1986
Delcorp, Inc.	1985 - 1986
Ludwig Allan J. & David J. Miller	1985 - 1985
Bennet, Steve R.	1983 - 1985
Ludwig Allan J. & David J. Miller	1983
Dawn Realty	1983
Century Motor Coach	1983
Dygert, David L. & Phyllis B.	1973 - 1983
Baker, Ernest R. & Minola A.	1962 - 1973

Hach has leased a portion of the Property at 3504 Henke for research and development and a laboratory since 2004.

SEYFARTH SHAW LLP
ATTORNEYS

Attachment B

Phase I Environmental Site Assessment
August, 1999

REPORT

ENVIRONMENTAL SITE ASSESMENT REPORTS(BB&L, AUGUEST 1999)
012850-000122
HACH CORPORATION
PINS 0007
PKT - 0001

Phase I Environmental Site Assessment

Environmental Test Systems, Inc.
Elkhart, Indiana

Danaher Corporation
Washington, D.C.

August 1999

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Appendix C
Quarterly Air Monitoring Reports for Dryer Emmissions

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Environmental Test Systems, Inc.
A HACH Company

IDEM DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION

QUARTERLY REPORT
(1st Qtr 1999)

Source Name:	Environmental Test Systems, Inc.
Source Address:	23575 County Road 106, Elkhart, Indiana 46514
Mailing Address:	P.O Box 4659, Elkhart, Indiana 46514
Construction Permit No.:	CP039-3039-00187
Amendment No.:	A039-9067-00187 AVG/DAY
Facility:	Paper Dryer 1
	Paper Dryer 2
Parameter:	VOC
Limit for Each Dryer:	24 tons per year, rolled on a monthly basis.

Year: 1999

	Paper Dryer 1 (tons)		
	Column 1	Column 2	Column 1+2
Month	This Month	Previous 11 Months	12 Month Total
January	0.22	1.89	2.11
February	0.28	1.93	2.21
March	0.29	1.89	2.18

	Paper Dryer 2 (tons)		
	Column 1	Column 2	Column 1+2
Month	This Month	Previous 11 Months	12 Month Total
January	0.01	0.04	0.05
February	0.21	0.05	0.26
March	0.12	0.26	0.38

Submitted by:	John Whetzell
Title/Position:	Vice President, Operations
Signature:	John L. Whetzell
Date:	4/1/99
Phone:	(219) 262-2060 X. 101

Environmental Test Systems, Inc.
A HACH Company

IDEM DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION

QUARTERLY REPORT
(4th Qtr 1998)

Source Name:	Environmental Test Systems, Inc.
Source Address:	23575 County Road 106, Elkhart, Indiana 46514
Mailing Address:	P.O Box 4659, Elkhart, Indiana 46514
Construction Permit No.:	CP039-3039-00187
Amendment No.:	A039-9067-00187 AVG/DAY
Facility:	Paper Dryer 1
	Paper Dryer 2
Parameter:	VOC
Limit for Each Dryer:	24 tons per year, rolled on a monthly basis.

Year: 1998

	Paper Dryer 1		
	Column 1	Column 2	Column 1+2
Month	This Month	Previous 11 Months	12 Month Total
October	0.21 (tons)	1.91(tons)	2.12 (tons)
November	0.23 (tons)	1.98 (tons)	2.21 (tons)
December	0.19 (tons)	1.93 (tons)	2.12 (tons)

	Paper Dryer 2		
	Column 1	Column 2	Column 1+2
Month	This Month	Previous 11 Months	12 Month Total
October	0.02 (tons)	0.10 (tons)	0.12 (tons)
November	0.00 (tons)	0.08 (tons)	0.08 (tons)
December	0.00 (tons)	0.04 (tons)	0.04 (tons)

Submitted by: John Whetzell
Title/Position: Vice President, Operations
Signature: John R Whetzell
Date: 1/6/99
Phone: (219) 262-2060 X. 101

P.O. Box 4659 • Elkhart, IN 46514-0659 • (219) 262-2060 • 800-548-4381
FAX (219) 262-2495 • www.etsstripe.com
ISO 9001 Certified

IDEM DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION

QUARTERLY REPORT
(3rd Qtr 1998)

Source Name: Environmental Test Systems, Inc.
Source Address: 23575 County Road 106, Elkhart, Indiana 46514
Mailing Address: P.O Box 4659, Elkhart, Indiana 46514
Construction Permit N CP039-3039-00187
Amendment No.: A039-9067-00187 AVG/DAY
Facility: Paper Dryer 1
Paper Dryer 2
Parameter: VOC
Limit for Each Dryer: 24 tons per year, rolled on a monthly basis.

Year: 1998

Paper Dryer 1

Month	Column 1 This Month	Column 2 Previous 11 Months	Column 1+2 12 Month Total
July	0.10 (tons)	1.92 (tons)	2.02 (tons)
August	0.14 (tons)	1.93 (tons)	2.07 (tons)
September	0.11 (tons)	1.98 (tons)	2.09 (tons)

Paper Dryer 2

Month	Column 1 This Month	Column 2 Previous 11 Months	Column 1+2 12 Month Total
July	0.01 (tons)	0.08 (tons)	0.09 (tons)
August	0.00 (tons)	0.09 (tons)	0.09 (tons)
September	0.01 (tons)	0.09 (tons)	0.10 (tons)

Submitted by: John Whetzell
Title/Position: Vice President, Operations
Signature: John L. Whetzell
Date: 10-1-98
Phone: (219) 262-2060 X. 101

IDEM DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION

QUARTERLY REPORT
(2nd Qtr 1998)

Source Name: Environmental Test Systems, Inc.
Source Address: 23575 County Road 106, Elkhart, Indiana 46514
Mailing Address: P.O Box 4659, Elkhart, Indiana 46514
Construction Permit No. CP039-3039-00187
Amendment No.: A039-9067-00187 AVG/DAY
Facility: Paper Dryer 1
Paper Dryer 2
Parameter: VOC
Limit for Each Dryer: 24 tons per year, rolled on a monthly basis.

Year: 1998

Paper Dryer 1

Month	Column 1 This Month	Column 2 Previous 11 Months	Column 1+2 12 Month Total
April	0.19 (tons)	1.96 (tons)	2.15 (tons)
May	0.12 (tons)	1.88 (tons)	2.00 (tons)
June	0.19 (tons)	1.90 (tons)	2.09 (tons)

Paper Dryer 2

Month	Column 1 This Month	Column 2 Previous 11 Months	Column 1+2 12 Month Total
April	0.00 (tons)	0.09 (tons)	0.09 (tons)
May	0.00 (tons)	0.08 (tons)	0.08 (tons)
June	0.00 (tons)	0.08 (tons)	0.08 (tons)

Submitted by: John Whetzell
Title/Position: Vice President, Operations
Signature: John L. Whetzell
Date: 7-7-98
Phone: (219) 262-2060 X. 101

Appendix D
Hazardous Waste Manifests

STATE OF WISCONSIN

Chapter 144, Wis. Stats.
Form 4400-66P Rev. 3-97

ALL COPIES MUST BE LEGIBLE, PLEASE TYPE

State of Wisconsin
Department of Natural Resources
Bureau of Solid and Hazardous Waste Mgt.
Box 8094
Madison, Wisconsin 53708

FOR DNR USE ONLY

Form designed for use on elite (12-pitch) typewriter.

Form Approved. OMB No. 2050-0039. Expires 9-30-9

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. I N D 1 5 2 0 9 4 7 8 5
Manifest Document No. [illegible]
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
ENVIRONMENTAL TEST SYSTEMS
23575 CO. RD. 106
ELKHART, IN 46514

Site Location If Different
23575 CO. RD. 106
ELKHART, IN 46514

4. Generator's Phone (219) 262-2060

A. State Manifest Document Number WI J7319 62

B. State Generator's ID

5. Transporter 1 Company Name
ADVANCED ENVIR TECH SRVS(AETS)

6. US EPA ID Number
N J D 0 8 0 6 3 1 3 6 9

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name
Midwest Transport Inc

8. US EPA ID Number
WIR000006700

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
AETS CONTROLLED WASTE DIVISION
W124 N9451 BOUNDARY RD.
MENOMONEE FALLS, WI 53051

10. US EPA ID Number
W I D 0 0 3 9 6 7 1 4 8

G. State Facility's ID

H. Facility's Phone 414 255-6005

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. X RQ WASTE ALCOHOLS, N.O.S. ,(ETHANOL, METHANOL) 3,UN1987,II (D001)	002	DM	00110	G	D001
b. X RQ HAZARDOUS WASTE, SOLID, N.O.S. ,9,NA3077,III (D004)	003	DM	00165	G	D004
c. X RQ HAZARDOUS WASTE, LIQUID, N.O.S. ,9,NA3082,III (D004)	002	DM	00110	G	D004
d.					

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
PACKING SLIPS ATTACHED FOR CLARIFICATION EMERGENCY PHONE 808 353-2307
COD Requested

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations and according to the requirements of the Wisconsin Department of Natural Resources. If I am a large quantity generator, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment;

OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name & Position Title	Signature	Date (Month Day Ye)
[illegible]	[illegible]	02 02 9[illegible]

TRANSPORTER

17. TRANSPORTER 1 Acknowledgement of Receipt of Materials

Printed/Typed Name & Position Title	Signature	Date (Month Day Ye)
Pete M. Engelhardt for WMIS	[signature]	02 02 9[illegible]

18. TRANSPORTER 2 Acknowledgement of Receipt of Materials

Printed/Typed Name & Position Title	Signature	Date (Month Day Ye)
JOHN GRACK DRIVER	[signature]	02/19

FACILITY

19. Discrepancy Indication Space

20. FACILITY OWNER OR OPERATOR: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name & Position Title	Signature	Date (Month Day Ye)
TRUDY WARNKE / REC COORD	Trudy Warnke	02 19 9[illegible]

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

Copy Distribution:
1 — Generator send to Wis. DNR
2 — Generator retain
3 — Facility send to Wis. DNR
4 — Facility retain
5 — Facility send to Genera
6 — Transporter retain
Copies 1 & 3 mail to Wis. DNR at above address.

Emergency 24 Hour Assistance Telephone Number
In Wisconsin (608) 266-3232
Outside Wisconsin (800) 424-8802

COPY 5-
FACILITY SEND TO GENERATOR

STATE OF WISCONSIN

Chapter 144, Wis. Stats.
Form 4400-66P Rev. 3-97

ALL COPIES MUST BE LEGIBLE, PLEASE TYPE

n designed for use on elite (12-pitch) typewriter.

State of Wisconsin
Department of Natural Resources
Bureau of Solid and Hazardous Waste Mgt.
Box 8094
Madison, Wisconsin 53708

FOR DNR USE ONLY

Form Approved. OMB No. 2060-0039. Expires 9-30-9

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: I N D 1 5 2 0 9 4 7 8 5
Manifest Document No.: 8 7 1 7 1
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
[redacted]
23575 CO. RD. 106
ELKHART, IN 46514

Site Location If Different
23575 CO. RD. 106
ELKHART, IN 46514

4. Generator's Phone (219) 262-2060

A. State Manifest Document Number: WI J7319 [redacted] SS
B. State Generator's ID:

5. Transporter 1 Company Name: ADVANCED ENVIR TECH SRVS(AETS)
6. US EPA ID Number: N J D 0 8 0 6 3 1 3 6 9
C. State Transporter's ID:
D. Transporter's Phone: 773 [redacted]

7. Transporter 2 Company Name: Midwest Transport Inc
8. US EPA ID Number: WIR000606700
E. State Transporter's ID: [redacted]
F. Transporter's Phone: (414) 255-[redacted]

9. Designated Facility Name and Site Address
AETS CONTROLLED WASTE DIVISION
W124 N9451 BOUNDARY RD.
MENOMONEE FALLS, WI 53051
10. US EPA ID Number: W I D 0 0 3 9 6 7 1 4 8
G. State Facility's ID: 0313[redacted]
H. Facility's Phone: 414 256-[redacted]

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. XRQ HAZARDOUS WASTE, SOLID, n.o.s. ,9,NA3077,III (D009)	001	CF	00022	P	D009
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above: [illegible]
K. Handling Codes for Wastes Listed Above:

15. Special Handling Instructions and Additional Information
PACKING SLIPS ATTACHED FOR CLARIFICATION EMERGENCY PHONE 888 353-2307
C.O.D. Requested

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations and according to the requirements of the Wisconsin Department of Natural Resources. If I am a large quantity generator, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment;

OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name & Position Title	Signature	Date (Month Day Year)
[illegible]	[illegible]	02 02 99

17. TRANSPORTER 1 Acknowledgement of Receipt of Materials

Printed/Typed Name & Position Title	Signature	Date (Month Day Year)
Pete A Excelbrath Jr. Project Manager WIMIS	[illegible]	02 02 99

18. TRANSPORTER 2 Acknowledgement of Receipt of Materials

Printed/Typed Name & Position Title	Signature	Date (Month Day Year)
RON BOMAR DRIVER	[illegible]	02 17 99

19. Discrepancy Indication Space

20. FACILITY OWNER OR OPERATOR: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name & Position Title	Signature	Date (Month Day Year)
TRUDY WARNKE / REC. COORD	Trudy Warnke	02 15 99

A Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

Copy Distribution:
1 — Generator send to Wis. DNR
2 — Generator retain
3 — Facility send to Wis. DNR
4 — Facility retain
5 — Facility send to Generator
6 — Transporter retain
Copies 1 & 3 mail to Wis. DNR at above address.

nergency 24 Hour Assistance Telephone Number
Wisconsin (608) 266-3232
side Wisconsin (800) 424-8802

COPY 5-
FACILITY SEND TO GENERATOR

AETS
ADVANCED ENVIRONMENTAL TECHNICAL SERVICES

Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. I N D 1 5 2 0 8 4 7 8 5 8 Manifest Document No. 0 | 2. Page 1 of 1

3. Generator's Name and Mailing Address
ENVIRONMENTAL TEST SYSTEMS 23575 CO. RD. 106
ELKHART IN 46514

4. Generator's Phone (219) 262-2060

A. Non-hazardous Manifest Document Number: Z 0022613

B. State Generator's ID: SAME

5. Transporter 1 Company Name: ADVANCED ENVIR TECH SRVS(AETS)
6. US EPA ID Number: I N D 0 8 0 6 8 1 3 6
C. State Trans. ID:

7. Transporter 2 Company Name: Midwest Transport Inc.
8. US EPA ID Number: WIA0001096700
D. Transporter's Phone (773 646-8333
E. State Trans. ID: 1491611414

9. Designated Facility Name and Site Address
AETS CONTROLLED WASTE DIVISION
W124 N9451 BOUNDARY RD.
MENOMONEE FALLS, WI 53051
10. US EPA ID Number: W I D 0 0 8 9 6 7 1 4
F. Transporter's Phone (414) 255-6655
G. State Facility's ID: 03002
H. Facility's Phone (414 255-6655

GENERATOR

	11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	NON-REGULATED MATERIAL, NON-RCRA, NON-DOT. DOT NON-REGULATED,NONE	001	DM	00055	G	NONE
b.	NON-REGULATED MATERIAL, NON-RCRA, NON-DOT. DOT NON-REGULATED,NONE	004	DM	00220	G	NONE
c.						
d.						

J. Additional Descriptions for Materials Listed Above
CWDORCEMPTY/413658
aCWDWDLNHI/264449
c.
GOOD REQUESTED.
d.

K. Handling Codes for Wastes Listed Above
a.
c.
b.
d.

15. Special Handling Instructions and Additional Information
PACKING SLIPS ATTACHED FOR CLARIFICATION EMERGENCY PHONE 888 353-2387

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
I hereby certify that the above-named material is not hazardous waste as defined by 40 CFR Part 261 or any applicable state law.

Printed/Typed Name: T. A. Lindvall
Signature:
Month Day Year: 10 21 99

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Pete H. Eccleshall
Signature:
Month Day Year: 10 21 99

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: JOE OPINCH
Signature:
Month Day Year: 10 21 99

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: TRUDY WARNKE / REC COORD
Signature: Trudy Warnke
Month Day Year: 02 15 99

5-TSD MAIL TO GENERATOR COPY

SIGNATURE AND INFORMATION *MUST* BE LEGIBLE ON ALL COPIES

Appendix E
November 10, 1997 Letter from the City of Elkhart Sewer Department to ETS

	PUBLIC WORKS & UTILITIES ADMINISTRATION	CUSTOMER BILLING	BOARD OF PUBLIC WORKS
Phone	(219) 293-2572	(219) 264-4273	(219) 294-5471
Fax	(219) 293-7658		(219) 293-7964
Mailing	1201 S. Nappanee St. Elkhart, IN 46516	921 N. Main St. Elkhart, IN 46514	229 S. Second St. Elkhart, IN 46516

CITY OF ELKHART, INDIANA

JAMES P. PERRON, Mayor

CERTIFIED MAIL

November 10, 1997

Mr. John Whetzell
Vice-president of Operations
ENVIRONMENTAL TEST SYSTEMS, INC.
23575 C.R. 106
P.O. Box 4659
Elkhart, IN 46514-0659

Re: Sewer Connection

Dear Mr. Whetzell,

Thank you for your time during our visit to your facility last week. This letter is to confirm that your facility will not be required to obtain an Industrial Wastewater Discharge Permit from our Office.

This determination was made due to the fact that at this time, based on information provided by you, your company does not meet the definition of Significant Industrial User under the City of Elkhart Sewer Use and Rate Ordinance No. 4187, Section 1.1.63, as amended. Your company must notify our Office of all/any changes to your discharges so that your status may be reevaluated under applicable regulations.

Please be advised that your company must maintain compliance with all requirements of the above Ordinance and noncompliance with any provision will be addressed with progressive enforcement actions by our Office. Enclosed you will find a certification statement that must be submitted annually by your company and is due in our Office by no later than **January 25th of the following year of certification.** This certification must be signed by a corporate officer and is binding on the company. Our Office advises you that proper verification be made of continuous compliance before the certification is signed and submitted and that your company have in place systems which may prove such status of compliance.

Finally, please find enclosed a copy of an Accidental Slug Discharge Prevention Plan submitted by your facility on June 10, 1993. Please refer to Section 2.11 of the Sewer Use and Rate Ordinance No. 4187, revise the enclosed Plan so to meet all requirements of the Ordinance and resubmit it to our Office for approval. The approved plan must be implemented at the time of connection to the sewer and must be complied with at all times.

Again, thank you for your time and consideration and we appreciate your cooperation throughout this process. Should you have any questions and/or concerns, please feel free to contact us at (219) 293-2572.

Sincerely,

Claudio H. Ternieden

Claudio H. Ternieden
Pretreatment/Enforcement Director

Enclosures: Annual Certification
City of Elkhart Sewer Use and Rate Ordinance No. 4187
Accidental Slug Discharge Prevention Plan (for revision and resubmittal)

cc: File

Appendix F
ETS Guidance List for Disposal of Chemicals

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

DISPOSAL OF R&D CHEMICALS

* TCLP - Toxicity Characteristics Leaching Procedure
* VOC - Volatile Organic Chemical (or compound)

HAZARDOUS CHEMICALS

Category	Chemical/Group	Reg. Limit Liquid (mg/L)	Reg. Limit Solid (mg/Kg)
TCLP Metals			
	Arsenic	5.00	5.00
	Barium	100	100
	Cadmium	1.00	1.00
	Chromium	5.00	5.00
	Lead	5.00	5.00
	Mercury	0.200	0.200
	Selenium	1.00	1.00
	Silver	5.00	5.00
TCLP VOCs			
	Benzene	0.500	0.500
	Carbon Tetrachloride	0.500	0.500
	Chlorobenzene	100	100
	Chloroform	6.00	6.00
	1,4 Dichlorobenzene	7.50	7.50
	1,2 Dichloroethane	0.500	0.500
	1,1 Dichloroethylene	0.700	0.700
	Methyl Ethyl Ketone	200	200
	Tetrachloroethylene	0.700	0.700
	Trichloroethylene	0.500	0.500
	Vinyl Chloride	0.200	0.200
TCLP Base/Neutral/Acids			
	Cresol, o-	200	200
	Cresol, p- & m-	200	200
	Dinitrotoluene	0.130	0.130
	Hexachlorobenzene	0.130	0.130
	Hexachlorobutadiene	0.500	0.500
	Hexachloroethane	3.00	3.00
	Nitrobenzene	2.00	2.00
	Pentachlorophenol	100	100
	Pyridine	5.00	5.00
	2,4,5-Trichlorophenol	400	400
	2,4,6-Trichlorophenol	2.00	2.00

DISCHARGE PROHIBITIONS
(As per the Elkhart City Sewer)

1*	2*
Gasoline	Perchlorates
Kerosene	Bromates
Naptha	Carbides
Benzene	Hydrides
Toluene	Sulfides
Alcohols	Detergents
Petroleum Oil	Surface-active agents
Cutting Oil	Ketones
Mineral Oil	Aldehydes
	Peroxides
	Chlorates
	Ethers

Specific Pollutant Limitations (3*)

2.1 mg/L	Arsenic
1.2 mg/L	Cadmium
4.5 mg/L	Copper
0.60 mg/L	Lead
0.02 mg/L	Mercury
4.1 mg/L	Nickel
1.2 mg/L	Silver
7.0 mg/L	Total Chromium
4.2 mg/L	Zinc
1.75 mg/L	Cyanide
1.0 mg/L	Phenolic Compounds

1*-This material should go into a flammable drum.
2* - This material should go into a non-regulated drum.
(located in Mix Rm #1 identified as 'Non-regulated')
3* - Material that is greater than these limits (but less than the TCLP Limits) should go to the non-regulated drum.

Place TCLP Metals into the "Hazardous Waste" drum.
Place TCLP VOCs into the "Hazardous VOC" drum (5 gallon black drum located by the hazardous waste storage in the warehouse).
For mixtures of TCLP metals, TCLP VOCs, and TCLP Base/Neutral/Acids put waste into "Hazardous VOC" Drum.

Rev. 5/13/98

Appendix G
Chemicals Used in Reagent Test Strips

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Chemical Components of Major Products

Total Alkalinity	RO/DI Water		**Free Chlorine/Bromine**	RO/DI water
	Bromocresol Green, Sodium Salt			PVA
	Nitrazine Yellow			Reagent alcohol
	Sodium Citrate			Syringaldazine
	Citric Acid			3,3',5,5' tetramethylbenzidine
	Sodium Thiosulfate			Maleic acid
	Igepal CO 660			Zonyl FSN
	Sodium Hydroxide			Sodium hydroxide
	Hydrochloric Acid			Hydrochloric acid
pH	RO/DI water		**Total Chlorine**	Reagent alcohol
	polyvinyl alcohol			3,3'-dimethylnaphthidine
	Keltrol			Cyclamic acid (cyclohexanesulfamic acid)
	phenylarsine oxide			RO/DI water
	phenol red			PVA
	m-cresol purple			Zonyl FSN
	Reagent Alcohol			
	1N hydrochloric acid			
	1N sodium hydroxide			

Appendix H
IDEM Correspondence Regarding Removal of Underground Concrete Containment Tank

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

CONFIDENTIAL

Dynamic Engineering, Inc.

January 10, 1997

Mr. Bill Melchior
ETS, Inc.
POB 4659
Elkhart, IN 46514

RE: Underground Tank Removal

Dear Bill:

I had a conversation with Brian Davenport at IDEM. He concurred that the ETS tank does not have to be registered, and can be removed following "standard procedures".

Further inquiry into "standard procedures" are per the Philip Environmental quote. Testing does have to occur and removal should be by a company which is familiar with the procedure. Sotebeer is not in this type of business and they have indicated in the past that they are not interested.

I recommend that ETS have Philip Environmental remove the tank. If you have other Indiana registered environmental companies that you want to bid on this work, we can pursue that. However, non-environmental companies should not be considered based upon what I understand needs to occur.

It is my desire to serve you so you do this project right, without any repercussions from the state. I remain your faithful servant.

Very Truly Yours,

DYNAMIC ENGINEERING, INC.

Lee Kennedy
President

LK/mk

cc: Maury Ugland - ETS

215 Broadus Road *Sturgis, Michigan 49091-1384* *(616) 651-4055*

CONFIDENTIAL

ETS

Environmental Test Systems, Inc.

Mr. Lee Kennedy
President, Dynamics Engineering, Inc.
215 Broadus Road
Sturgis MI 49091-1384

February 19, 1997

Dear Lee:

Reference our phone conversation yesterday, February 18 concerning the electrical modification to our respective reagent areas in manufacturing, the second assessment report by ERM (Environmental Resource Management) and the in-ground containment tank.

We expect to receive ERM's final report within a few days whereby we will then set up a meeting with yourself to review its detail. Bill Melchior will arrange this meeting to be held here at ETS.

As we discussed on the phone, you will write to Mr. Brian Davenport at IDEM concerning the in-ground containment tank re-stating the understanding of not needing to register this tank and unless you hear otherwise within a given period (2 - 3 weeks) to the contrary the tank will be removed following standard procedures. Craig Smith will be contacting Bill next week whereupon Bill will bring Craig up to date on this matter and determine if Almac will consider bidding on the tank's removal. We will want to remove it after the frost leaves the ground and dryer ground conditions are realized.

We appreciate very much your interest in working with us on this project which hopefully will take a more definitive direction in scope and timing now.

Thanks again and we look forward to working with Dynamic Engineering on the project.

Sincerely,

Maury Ugland
V.P. Operations

cc Bill Melchior
Scott Jeffries

P.S. We made a formal offer to Trissa today which she has accepted and she will commence work on March 10th given all necessary finalization of our hiring policy is met. Thanks Scott for your referral. We believe Trissa will be a very good addition to our engineering staff.

P.O. Box 4659 • Elkhart, IN 46514-0659 • (219) 262-2060 • FAX (219) 262-2495

Copies: B. Melchior
A. Butler
3/5/97

February 26, 1997

Mr. Brian Davenport
Indiana Department of Environmental Management
Commissioner's Office
Room 1301
POB 6015
Indianapolis, IN 46206

RE: Underground Tank Removal

Dear Mr. Davenport:

As per our last telephone conversation, ETS, in Elkhart, IN, has a concrete containment tank which has no outlet and has never had any chemicals in it. The tank also has never been registered. ETS desires to remove the tank.

Per our conversation, you believe the tank can be removed without registration, using standard removal procedures. ETS will remove the tank as soon as weather permits. Their plan is to use a local excavator for removal. Unless you take any exception to this procedure, and I hear from you within three (3) weeks, they will proceed with the removal in late April or early May.

Thank you for your assistance in this matter. Someday, I hope to meet you. If you are ever in the northern Indiana area, please come visit us. Best Regards!

Very Truly Yours,

DYNAMIC ENGINEERING, INC.

Lee Kennedy
President

LK/mk

cc: Maury Ugland - ETS
file

Appendix I
EDR Database Search Report

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

EDR Sanborn, Inc.
Historical Topographic Map Report

EDR Sanborn, Inc.'s (EDR Sanborn) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property, and its surrounding area, resulting from past activities. ASTM E 1527-97, Section 7.3 on Historical Use Information, identifies the prior use requirements for a Phase I environmental site assessment. The ASTM standard requires a review of *reasonably ascertainable standard historical sources. Reasonably ascertainable is defined as information that is publicly available, obtainable from a source with reasonable time and cost constraints, and practically reviewable.*

To meet the prior use requirements of ASTM E 1527-97, Section 7.3.2, the following *standard historical sources* may be used: aerial photographs, city directories, fire insurance maps, topographic maps, property tax files, land title records (although these cannot be the sole historical source consulted), building department records, or zoning/and use records. ASTM E 1527-97 requires *"All obvious uses of the property shall be identified from the present, back to the property's obvious first developed use, or back to 1940, whichever is earlier. This task requires reviewing only as many of the standard historical sources as are necessary, and that are reasonably ascertainable and likely to be useful."* (ASTM E 1527-97, Section 7.3.2 page 11.)

EDR Sanborn's Historical Topographic Map Report includes a search of available public and private color historical topographic map collections.

Topographic Maps

A topographic map (topo) is a color coded line-and-symbol representation of natural and selected artificial features plotted to a scale. Topos show the shape, elevation, and development of the terrain in precise detail by using contour lines and color coded symbols. Many features are shown by lines that may be straight, curved, solid, dashed, dotted, or in any combination. The colors of the lines usually indicate similar classes of information. For example, topographic contours (brown); lakes, streams, irrigation ditches, etc. (blue); land grids and important roads (red); secondary roads and trails, railroads, boundaries, etc. (black); and features that have been updated using aerial photography, but not field verified, such as disturbed land areas (e.g., gravel pits) and newly developed water bodies (purple).

For more than a century, the USGS has been creating and revising topographic maps for the entire country at a variety of scales. There are about 60,000 U.S. Geological Survey (USGS) produced topo maps covering the United States. Each map covers a specific quadrangle (quad) defined as a four-sided area bounded by latitude and longitude. Historical topographic maps are a valuable historical resource for documenting the prior use of a property and its surrounding area, and due to their frequent availability can be particularly helpful when other standard historical sources (such as city directories, fire insurance maps, or aerial photographs) are not reasonably ascertainable.

Please call EDR Sanborn, Inc. Nationwide Customer Service at
1-800-352-0050 (8am-8pm ET)
with questions or comments about your report.
Thank you for your business!

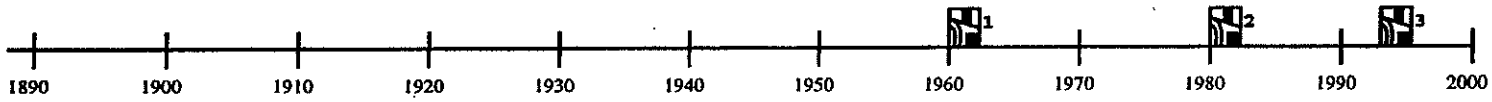
Disclaimer

This report contains information obtained from a variety of public and private sources. NO WARRANTY, EXPRESSED OR IMPLIED, IS MADE WHATSOEVER. EDR SANBORN, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, WARRANTIES AS TO ACCURACY, VALIDITY, COMPLETENESS, SUITABILITY, CONDITION, QUALITY, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR USE OR PURPOSE WITH RESPECT TO THE MAPS, ABSTRACTS, AERIAL PHOTOGRAPHS, TELEPHONE INTERVIEWS, CHAIN-OF-TITLE RESEARCH, THE INFORMATION CONTAINED THEREIN, OR THE RESULTS OF A SEARCH OR OTHERWISE. ALL RISK IS ASSUMED BY THE USER. EDR Sanborn, Inc. assumes no liability to any party for any loss or damage whether arising out of errors or omissions, negligence, accident or any other cause. In no event shall EDR Sanborn, Inc., its affiliates or agents, be liable to anyone for special, incidental, consequential or exemplary damages.

Environmental Data Resources, Inc.
an edr company

Prior Use Report™ Timeline

Target Property



Search Not Requested

Search Not Requested

Search Not Requested

Search Not Requested

Legend:

= Historical Topographic Map (HT)*

= National Wetland Inventory Map (WT)*

= Flood Prone/FEMA Maps (FP/FR)*

= Aerial Photos Included (P)*

= Aerial Photos Available*

= Residential (R)

= Commercial or Industrial (C)

Superscript number corresponds to graph ID in text

**Displayed on timeline when aerial photos, historical topos, flood prone, FEMA, wetland maps, or Aerial Research Summary are purchased.*

Target Property:	Environmental Test Systems,Inc	**Customer:**	Hach Company
Address:	23575 County Rd 106	**Contact:**	Mr. Douglas Baggett
City/State/Zip:	Elkhart, IN 46514	**Inquiry #:**	228062-4
		Date:	02/13/98

SUMMARY

- ***Historical Topographic Maps:***

For the state of Indiana, local collections of historical U.S.G.S. topographic maps were searched based on client-supplied information, and identified for the following years:

Historical Topographic Maps:
- 1961 Scale: 1:24,000
- 1981 Scale: 1:24,000
- 1994 Scale: 1:24,000

- **General Scale Information**

Scale	Conversion Factor
1:24,000	1 inch = 2000 feet
1:62,500	1 inch = 1 mile
1:250,000	1 inch = 4 miles
1:1,000,000	1 inch = about 16 miles
1:125,000	1 inch = about 2 miles

Date EDR Searched Historical Sources:
Historical Topo Maps February 11, 1998

Target Property:
23575 County Rd 106
Elkhart, IN 46514

PUR ID *Year*					*Source*
1 1961	QUAD: Elkhart, IN.	SERIES: 7.5 minutes.	SCALE: 1:24,000.	MAP MAINTENANCE: 1961	U.S.G.S. Topo Map
2 1981	QUAD: Elkhart, IN.	SERIES: 7.5 minutes.	SCALE: 1:24,000.	MAP MAINTENANCE: 1961 Photo revised 1981	U.S.G.S. Topo Map
3 1994	QUAD: Elkhart, IN.	SERIES: 7.5 minutes.	SCALE: 1:24,000.	MAP MAINTENANCE: 1961 Revised 1994	U.S.G.S. Topo Map

EDR Sanborn, Inc. Topographic Maps

Inquiry #: 228062-4

1.
TP Quad ✓ Adj Quad ____
Quad: ELKHART, IN.
Series: 7.5 minutes
Year: 1961
Map Maint: REVISED 1994
Scale: 1:24,000

5.
TP Quad ____ Adj Quad ____
Quad: ____
Series: ____ minutes
Year: ____
Map Maint: ____
Scale: ____

2.
TP Quad ✓ Adj Quad ____
Quad: ELKHART, IN
Series: 7.5 minutes
Year: 1961
Map Maint: PHOTOREVISED 1981
Scale: 1:24,000

6.
TP Quad ____ Adj Quad ____
Quad: ____
Series: ____ minutes
Year: ____
Map Maint: ____
Scale: ____

3.
TP Quad ✓ Adj Quad ____
Quad: ELKHART, IN.
Series: 7.5 minutes
Year: 1961
Map Maint: N/A
Scale: 1:24,000

7.
TP Quad ____ Adj Quad ____
Quad: ____
Series: ____ minutes
Year: ____
Map Maint: ____
Scale: ____

4.
TP Quad ____ Adj Quad ____
Quad: ____
Series: ____ minutes
Year: ____
Map Maint: ____
Scale: ____

8.
TP Quad ____ Adj Quad ____
Quad: ____
Series: ____ minutes
Year: ____
Map Maint: ____
Scale: ____

MAP FINDINGS SUMMARY SHOWING ALL SITES

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
NPL		1.000	0	0	0	0	NR	0
Delisted NPL		TP	NR	NR	NR	NR	NR	0
RCRIS-TSD		0.500	0	0	0	NR	NR	0
State Haz. Waste		1.000	0	0	0	0	NR	0
CERCLIS		0.500	0	0	0	NR	NR	0
CERC-NFRAP		TP	NR	NR	NR	NR	NR	0
CORRACTS		1.000	0	0	0	0	NR	0
State Landfill		0.500	0	0	0	NR	NR	0
LUST		0.500	0	1	1	NR	NR	2
UST		0.250	0	1	NR	NR	NR	1
RAATS		TP	NR	NR	NR	NR	NR	0
RCRIS Sm. Quan. Gen.	X	0.250	0	0	NR	NR	NR	0
RCRIS Lg. Quan. Gen.		0.250	0	1	NR	NR	NR	1
HMIRS		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
ERNS		TP	NR	NR	NR	NR	NR	0
FINDS	X	TP	NR	NR	NR	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
NPL Liens		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
IN Spills		TP	NR	NR	NR	NR	NR	0
ROD		1.000	0	0	0	0	NR	0
CONSENT		1.000	0	0	0	0	NR	0
Coal Gas		1.000	0	0	0	0	NR	0

TP = Target Property

NR = Not Requested at this Search Distance

* Sites may be listed in more than one database

MAP FINDINGS SUMMARY SHOWING ONLY SITES HIGHER THAN OR THE SAME ELEVATION AS TP

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
NPL		1.000	0	0	0	0	NR	0
Delisted NPL		TP	NR	NR	NR	NR	NR	0
RCRIS-TSD		0.500	0	0	0	NR	NR	0
State Haz. Waste		1.000	0	0	0	0	NR	0
CERCLIS		0.500	0	0	0	NR	NR	0
CERC-NFRAP		TP	NR	NR	NR	NR	NR	0
CORRACTS		1.000	0	0	0	0	NR	0
State Landfill		0.500	0	0	0	NR	NR	0
LUST		0.500	0	1	1	NR	NR	2
UST		0.250	0	1	NR	NR	NR	1
RAATS		TP	NR	NR	NR	NR	NR	0
RCRIS Sm. Quan. Gen.	X	0.250	0	0	NR	NR	NR	0
RCRIS Lg. Quan. Gen.		0.250	0	1	NR	NR	NR	1
HMIRS		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
ERNS		TP	NR	NR	NR	NR	NR	0
FINDS	X	TP	NR	NR	NR	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
NPL Liens		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
IN Spills		TP	NR	NR	NR	NR	NR	0
ROD		1.000	0	0	0	0	NR	0
CONSENT		1.000	0	0	0	0	NR	0
Coal Gas		1.000	0	0	0	0	NR	0

TP = Target Property

NR = Not Requested at this Search Distance

* Sites may be listed in more than one database

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number

Coal Gas Site Search: No site was found in a search of Real Property Scan's ENVIROHAZ database.

---

1 Target Property

ENVIRONMENTAL TEST SYSTEMS INC
23575 CR 106
ELKHART, IN 46514

RCRIS-SQG **1000261549**
FINDS **IND152094785**

RCRIS:
- Owner: STEPHENSON HARRY T (312) 555-1212
- Contact: MICHAEL PRESNAL (219) 262-2060
- Record Date: 08/27/87
- Classification: Small Quantity Generator
- Used Oil Recyc: No
- Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
- Facility is monitored or permitted for air emissions under the Clean Air Act (under AFS/AIRS)

---

2 East 1/8-1/4 Higher

ELKHART STEEL SERVICE INC
23321 CR 106
ELKHART, IN 46514

FINDS **1000754199**
UST **IND984998427**
LUST

FINDS:
Other Pertinent Environmental Activity Identified at Site:
- Facility is regulated by state environmental programs

LUST:

Facility ID:	000158	Date received:	04/14/86
Facility Contact:	JAMES KAMPER	Contact Title:	CONTROLLER
Contact Phone:	219-262-2552	Owner ID:	001617
Certification:	BRADFORD MILLER	Certification Date:	04/10/86
Amendment:	01	Amended Date:	03/10/95
Form Status:	C	Bill Cycle:	Not reported
Owner Effect Dt:	06/25/79	Former Owner ID:	000000
EPA ID:	Not reported	Operation Type:	Industry
Comment:	Not reported		
Data Entry Date:	04/19/91	Revise Date:	04/19/91
Owner:	VIGORO INDUSTRIES INC		
Owner Address:	405 OLD MILL ST PO BOX 264 ST JOE, IN 46785		
Owner Tele:	219-337-5424	Owner Description:	Private
Site Name:	SHELL OIL	Site Number:	9009603
Soil:	Yes	Ground Water:	No
Surface Water:	No	Utility Lines:	No
Drinking Water:	No	Vapors:	No
Substance:	Petroleum (LUST)	State Dollars:	No money spent
Initiated By:	Voluntary	Priority:	Medium
Disposition:	Active	Disposition Date:	Not reported
Comments:	Not reported		

ELKHART STEEL SERVICE INC (Continued) **1000754199**

Facility ID: 000158
Facility Contact: JAMES KAMPER
Contact Phone: 219-262-2552
Certification: BRADFORD MILLER
Amendment: 01
Form Status: C
Owner Effect Dt: 06/25/79
EPA ID: Not reported
Comment: Not reported
Data Entry Date: 12/01/93
Owner: VIGORO INDUSTRIES INC
Owner Address: 405 OLD MILL ST PO BOX 264
ST JOE, IN 46785
Owner Tele: 219-337-5424
Site Name: SHELL OIL STATAION
Soil: Yes
Surface Water: No
Drinking Water: No
Substance: Petroleum (LUST)
Initiated By: Voluntary
Disposition: Discontinued
Comments: Not reported

Date received: 04/14/86
Contact Title: CONTROLLER
Owner ID: 001617
Certification Date: 04/10/86
Amended Date: 03/10/95
Bill Cycle: Not reported
Former Owner ID: 000000
Operation Type: Industry

Revise Date: 06/02/97

Owner Description: Private
Site Number: 9311549
Ground Water: No
Utility Lines: No
Vapors: No
State Dollars: No money spent
Priority: Low
Disposition Date: 06/02/97

UST:
Facility ID: 001671
Facility Contact: JAMES KAMPER
Form Status: COMPLETE
Owner: ELKHART STEEL SERVICE INC
23321 CR 106
ELKHART, IN 46514
Owner Tel.: 219-262-25
Capacity: 000500
Tank Number: 001
Tank Status: Permanently out of service
Int. Protection: Unknown
Ext. Protection: Unknown
Piping: Galvanized steel
Other Petroleum: Not reported
Closure Status: REMOVED
Release Features: None
Protection Featrs: None
Install Features: None
Install Date: 010180
Closure Date: 03/29/93
Entry Date: 10/26/95
Owner Tank ID: Not reported
Hazardous Substance Description: Not reported

Total Tanks: 2
Contact Tel.: 219-262-2552
Operation Type: Industry

Owner Description: Private/Corp.
Material: Steel

Substance: Gasoline
Invoice Date: 10/15/94

Piping Method: Unknown
Last Used Date: Not reported
Revise Date: 03/14/95

ELKHART STEEL SERVICE INC (Continued) **1000754199**

Facility ID:	001671	Total Tanks:	2
Facility Contact:	JAMES KAMPER	Contact Tel.:	219-262-2552
Form Status:	COMPLETE	Operation Type:	Industry
Owner:	ELKHART STEEL SERVICE INC 23321 CR 106 ELKHART, IN 46514		
Owner Tel.:	219-262-25	Owner Description:	Private/Corp.
Capacity:	000500	Material:	Steel
Tank Number:	002		
Tank Status:	Permanently out of service		
Int. Protection:	Unknown		
Ext. Protection:	Unknown		
Piping:	Galvanized steel		
Other Petroleum:	Not reported	Substance:	Gasoline
Closure Status:	REMOVED	Invoice Date:	10/15/94
Release Features:	None		
Protection Featrs:	None		
Install Features:	None		
Install Date:	010180	Piping Method:	Unknown
Closure Date:	03/29/93	Last Used Date:	Not reported
Entry Date:	10/26/95	Revise Date:	03/14/95
Owner Tank ID:	Not reported		

Hazardous Substance Description: Not reported

3
NNE
1/8-1/4
Higher

SMM CORP
53364 MARINA DR
ELKHART, IN 46515

FINDS **1000109029**
RCRIS-LQG **IND074301268**

RCRIS:

Owner: LOWENHAR JUDD
(312) 555-1212

Contact: JUDD LOWENHAR
(219) 262-4571

Record Date: 08/18/80

Classification: Large Quantity Generator

Used Oil Recyc: No

Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site:
- Facility is regulated by state environmental programs

4
NW
1/4-1/2
Higher

CENTURY MOTOR COACH
53387 ADA DR
ELKHART, IN 46514

FINDS **1000753624**
UST **IND984988725**
LUST

CENTURY MOTOR COACH (Continued) **1000753624**

FINDS:
Other Pertinent Environmental Activity Identified at Site:
- Facility is regulated by state environmental programs

LUST:

Facility ID:	012522	Date received:	04/11/86
Facility Contact:	MILLARD J MARTEN	Contact Title:	CONTROLLER
Contact Phone:	219-266-1477	Owner ID:	001388
Certification:	MILLARD J MARTEN	Certification Date:	04/07/86
Amendment:	00	Amended Date:	12/08/94
Form Status:	C	Bill Cycle:	Not reported
Owner Effect Dt:	Not reported	Former Owner ID:	000000
EPA ID:	Not reported	Operation Type:	Industry
Comment:	Not reported		
Data Entry Date:	06/19/92	Revise Date:	06/19/92
Owner:	HAMILTON MOTORS INC		
Owner Address:	126 N MAIN ST BROWNSTOWN, IN 47220		
Owner Tele:	812-358-3224	Owner Description:	Private
Site Name:	EDMONSTON PROPERTY	Site Number:	9206536
Soil:	Yes	Ground Water:	Yes
Surface Water:	No	Utility Lines:	No
Drinking Water:	No	Vapors:	No
Substance:	Petroleum (LUST)	State Dollars:	No money spent
Initiated By:	Voluntary	Priority:	Medium
Disposition:	Active	Disposition Date:	Not reported
Comments:	Not reported		

UST:

Facility ID:	003318	Total Tanks:	1
Facility Contact:	MILLARD J MARTEN	Contact Tel.:	219-266-1477
Form Status:	COMPLETE	Operation Type:	Industry
Owner:	CHUPP & SONS CONVERSIONS INC 53387 ADA DR ELKHART, IN 46514		
Owner Tel.:	219-266-14	Owner Description:	Private/Corp.
Capacity:	000500	Material:	Unknown
Tank Number:	001		
Tank Status:	Currently in use		
Int. Protection:	Unknown		
Ext. Protection:	Unknown		
Piping:	Galvanized steel		
Other Petroleum:	Not reported	Substance:	Gasoline
Closure Status:	Open	Invoice Date:	10/18/96
Release Features:	None		
Protection Featrs:	None		
Install Features:	None		
Install Date:	Not reported	Piping Method:	Unknown
Closure Date:	Not reported	Last Used Date:	Not reported
Entry Date:	10/27/95	Revise Date:	01/29/96
Owner Tank ID:	Not reported		

Hazardous Substance Description: Not reported

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)	Facility ID
BRISTOL	S101376626	SKYLINE CORP	SR 15	46514	LUST, IN Spills	020107
ELKHART	1000149914	SYCAMORE STREET	108 116 & 117 SYCAMORE ST	46514	FINDS, CERC-NFRAP, SHWS	
ELKHART	S102771864	SIMONTON LAKE AUTO	51466 SR 19 N	46514	LUST	019581
ELKHART	S102771247	COACHMEN INDUSTRIES INC	27810 CR 6 RT 10	46514	LUST	005368
ELKHART	S102771867	COACHMEN INDUSTRIES INC	27810 CR 6 RT 10	46514	LUST	005368
ELKHART	1000510191	SULT BODY SHOP	52142 STATE RD 19 N	46514	RCRIS-SQG, FINDS	
ELKHART COUNTY	S101429605	EARTHMOVERS LANDFILL	CR 26, 1/2 MILE EAST OF CR 7		SWF/LF	
ELKHART COUNTY	S101273025	ELKHART COUNTY LANDFILL (CR 7 LANDFILL)	CR 7, 1 1/2 MILES SOUTH OF CR 20, 59530		SWF/LF	
WABASH	1000510725	INDOT WABASH SUBDIST	SR 13 1 PT 3 MI S OF US 24	46992	RCRIS-SQG, FINDS	
WABASH	U000192276	CHIPPEWA SERVICE	SR 15	46992	UST	013134
WABASH	U001079178	ROBBINS REPAIR SERVICE	SR 15 N	46992	UST	011085
WABASH	1001147920	BTR ANTIVIBRATION SYSTEMS INC	BOX 259, ONE GENERAL ST	46992	FINDS	
WABASH	1001087555	BTR ANTIVIBRATION SYSTEMS INC	BOX 259, ONE GENERAL ST	46992	RCRIS-LQG	
WABASH	1000226969	GOFF INC	US HWY 24	46992	RCRIS-SQG, FINDS	
WABASH	1000183521	FORD METER BOX CO INC	775 MANCHESTER AVE PO BOX 443	46992	FINDS, RCRIS-LQG, TRIS, RCRIS-TSD, CORRACTS, CERC-NFF	
WABASH	1000120130	US GYPSUM INTERIORS	3711 W MILL ST EXT	46992	CERCLIS, FINDS, RCRIS-LQG, TRIS, TSCA, UST	006899
WABASH	1000382959	PENSKE TRUCK LEASING CO LP	OLD HWY 24 W	46992	RCRIS-SQG, FINDS	
WABASH	1000463365	WABASH ALLOYS INC	4525 OLD US HWY 24 W	46992	RCRIS-SQG, FINDS, TRIS, CERC-NFRAP	
WABASH	1000180383	GENERAL TIRE & RUBBER CO	ONE GENERAL ST	46992	CERCLIS, RCRIS-LQG, TRIS, CORRACTS	

GEOCHECK VERSION 2.1 ADDENDUM
FEDERAL DATABASE WELL INFORMATION

Well Closest to Target Property (Northern Quadrant)

BASIC WELL DATA

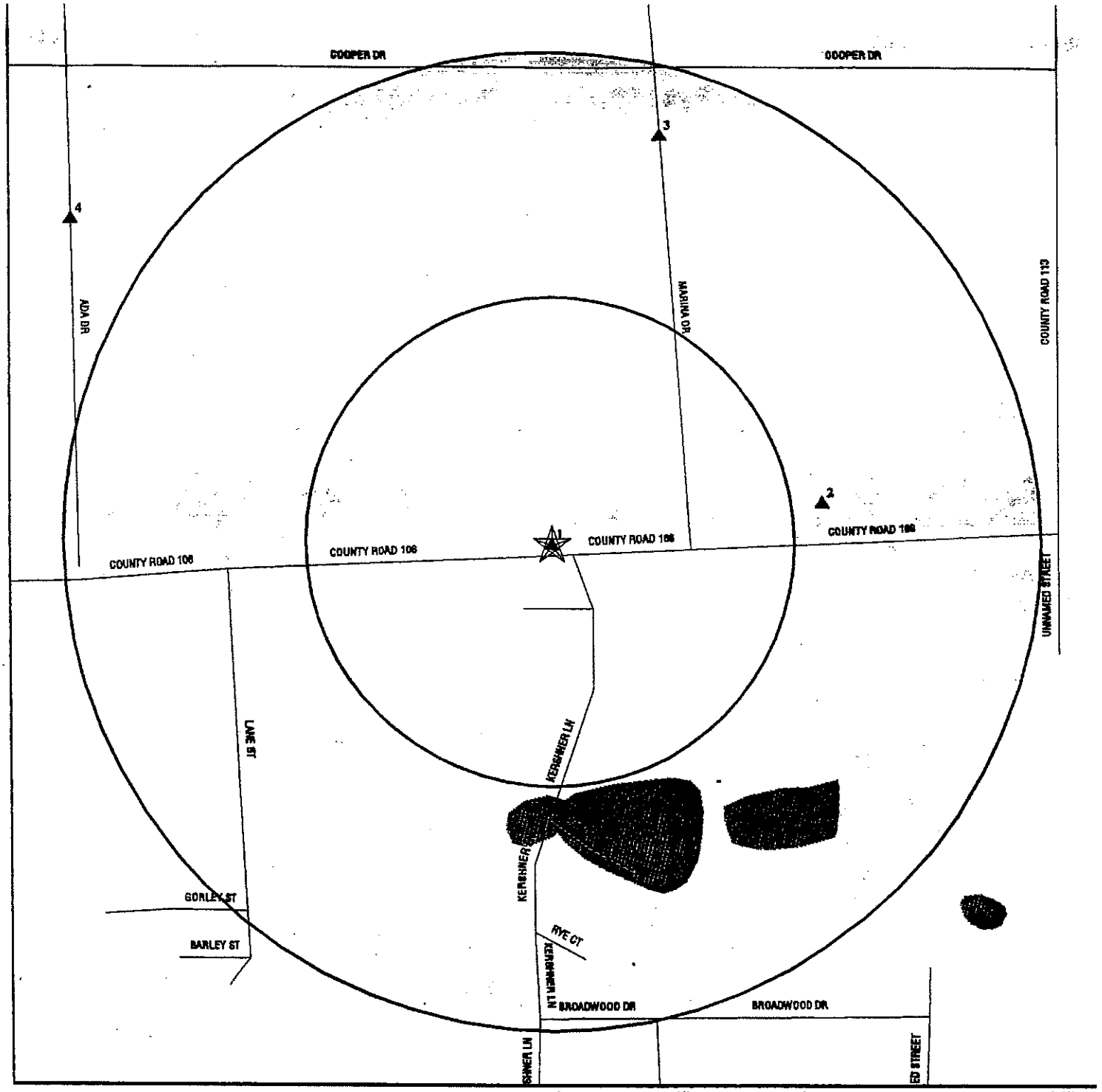
Site ID:	414537085553201	Distance from TP:	>2 Miles
Site Type:	Single well, other than collector or Ranney type		
Year Constructed:	1971	County:	Cass
Altitude:	786.00 ft.	State:	Michigan
Well Depth:	108.00 ft.	Topographic Setting:	Not Reported
Depth to Water Table:	6.00 ft.	Prim. Use of Site:	Withdrawal of water
Date Measured:	Not Reported	Prim. Use of Water:	Public supply

LITHOLOGIC DATA

Geologic Age ID (Era/System/Series):	Cenozoic-Quaternary-Pleistocene
Principal Lithology of Unit:	Not Reported
Further Description:	Not Reported

WATER LEVEL VARIABILITY

Not Reported



★ Target Property

▲ Sites at elevations higher than or equal to the target property

◆ Sites at elevations lower than the target property

Coal Gasification Sites (if requested)

Sensitive Receptors

National Priority List Sites

Landfill Sites

Power transmission lines

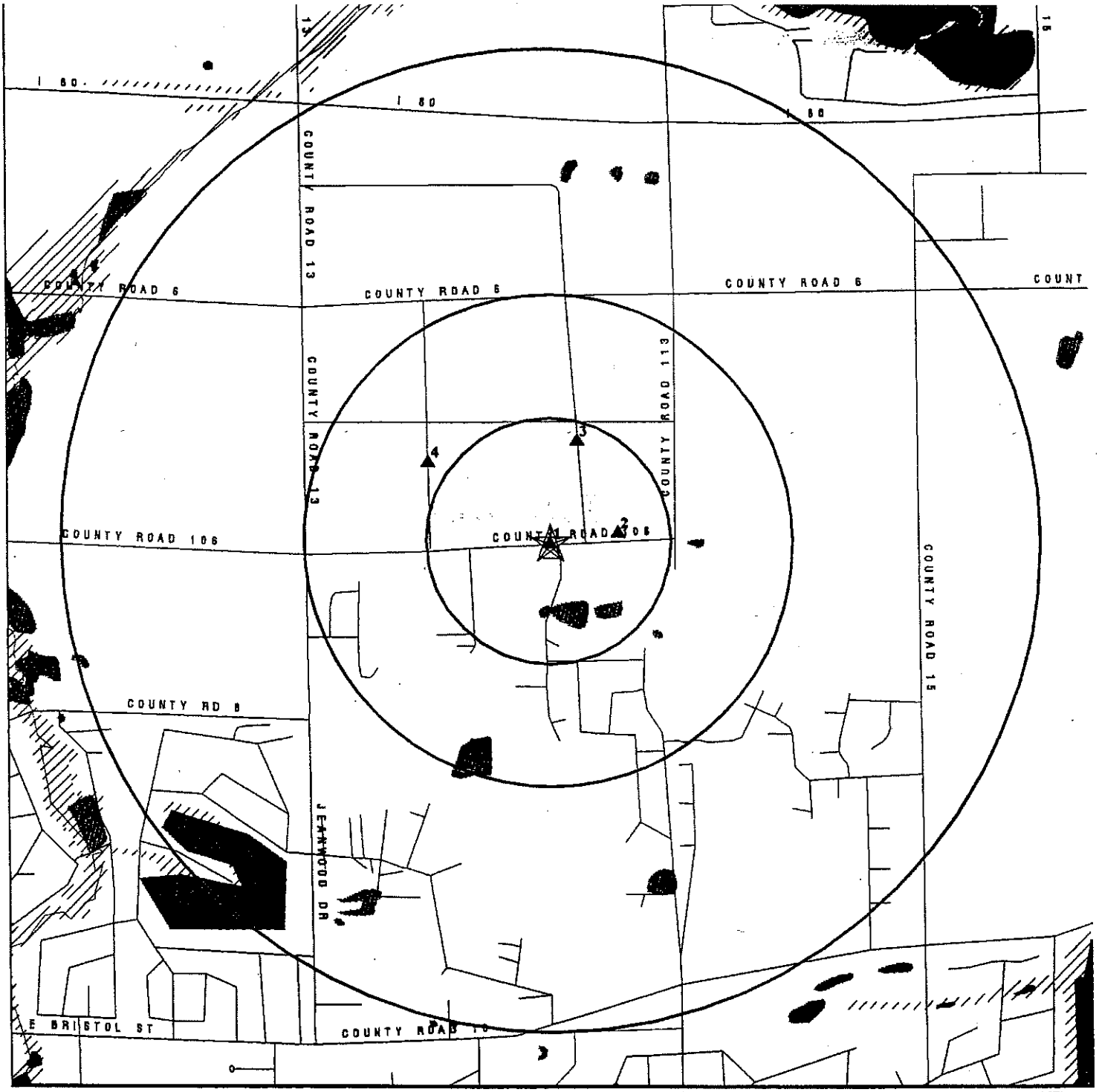
Oil & Gas pipelines

100-year flood zone

500-year flood zone

Wetlands per National Wetlands Inventory (1994)

TARGET PROPERTY:	Environmental Test Systems, Inc.	CUSTOMER:	Hach Company
ADDRESS:	23575 County Rd 106	CONTACT:	Mr. Douglas Baggett
CITY/STATE/ZIP:	Elkhart IN 46992	INQUIRY #:	228062.1s
LAT/LONG:	41.7169 / 85.9178	DATE:	February 11, 1998 5:34 pm



★ Target Property

▲ Sites at elevations higher than or equal to the target property

◆ Sites at elevations lower than the target property

Coal Gasification Sites (if requested)

National Priority List Sites

Landfill Sites

Power transmission lines

Oil & Gas pipelines

100-year flood zone

500-year flood zone

Wetlands per National Wetlands Inventory (1994)

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ADDRESS:	23575 County Rd 106	CONTACT:	Mr. Douglas Baggett
CITY/STATE/ZIP:	Elkhart IN 46992	INQUIRY #:	228062.1s
LAT/LONG:	41.7169 / 85.9178	DATE:	February 11, 1998 5:32 pm

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Water Wells Information:

Well Within >2 Miles of Target Property (Eastern Quadrant)

Pub. Water Supply ID:	2200504	Type:	Non-community Well
Source Type:	Ground	Population:	25
System Name:	JEHOVAH'S WITNESSES EAST 54541 COUNTY ROAD 19 BRISTOL, IN 46507		
Non-transient Status:	Transient		
Operator's Name:	ROGER SMITH		
Operator's Phone:	(219)848-5189		
Contact:	ROGER SMITH		
Contact Phone:	(219)848-5189	County:	ELKHART

Well Within 1 - 2 Miles of Target Property (Western Quadrant)

Pub. Water Supply ID:	2200469	Type:	Non-community Well
Source Type:	Ground	Population:	30
System Name:	OSOLO MISSIONARY CHURCH 25435 COUNTY ROAD 6 EAST ELKHART, IN 46514		
Non-transient Status:	Transient		
Operator's Name:	DALE TURNER		
Operator's Phone:	(219)264-3933		
Contact:	OSOLO MISSIONARY CHURCH		
Contact Phone:	(219)264-3933	County:	ELKHART

GEOCHECK VERSION 2.1
PUBLIC WATER SUPPLY SYSTEM INFORMATION

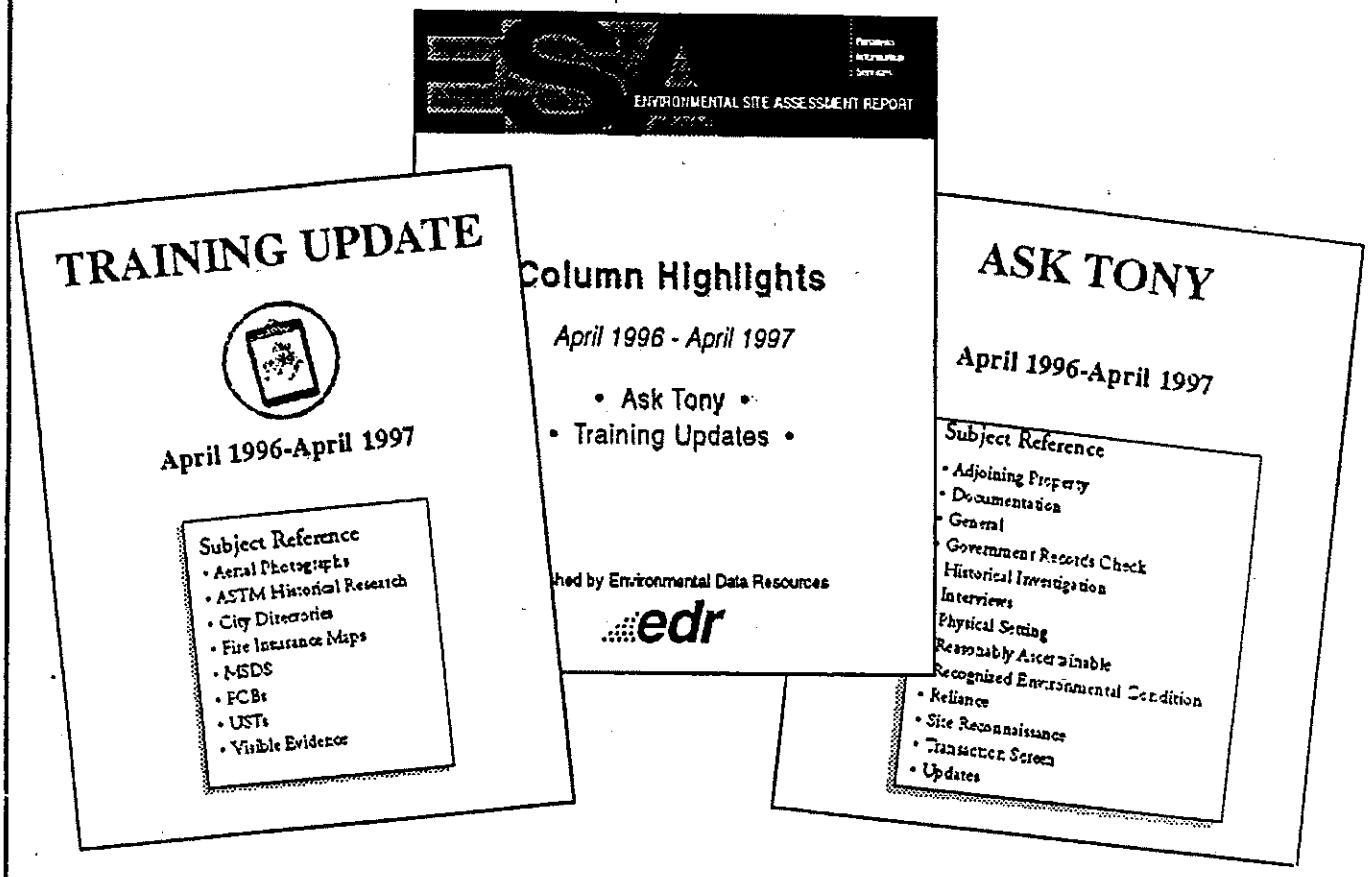
Searched by Nearest PWS.

PWS SUMMARY:

PWS ID:	IN2200883	PWS Status:	Active	Distance from TP:	>2 Miles
Date Initiated:	January / 1976	Date Deactivated:	Not Reported	Dir relative to TP:	West
PWS Name:	ELCONA COUNTRY CLUB (DRINKING FOUNTAIN) P.O. BOX 726 ELKHART, IN 46515				
Addressee / Facility:	Not Reported				
Facility Latitude:	41 41 18		Facility Longitude:	085 58 36	
City Served:	Not Reported				
Treatment Class:	Untreated		Population Served:	Under 101 Persons	

PWS currently has or has had major violation(s): No

Now Available:
ESA Report Column Highlights



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4207ER	Sodium bicarbonate	FISH	S233	144-55-8
4209ER	Sodium hydrogen sulfate, H2O	ALD	23,371-4	10034-88-5
4213ER	Sodium carbonate	FISH	S263	497-19-8
4216ER	Sodium chloride	FISH	S271	7647-14-5
4218ER	Sodium citrate, tribasic, 2H2O	ALD	85,578-2	6132-04-3
4219ER	Sodium cyclamate	SIG	C-9131	139-05-9
4224ER	Sodium fluoride	ALD	20,115-4	7681-49-4
4226ER	Sodium hydroxide, 10.0 M	LC	LC24500	1310-73-2
4227ER	Sodium hydroxide, 50%	FISH	SS254	1310-73-2
4227-1ER	Sodium hydroxide, 1.0 M	FISH	SS266	1310-73-2
4227-2ER	Sodium hydroxide, 0.1 M	FISH	SS276	1310-73-2
4228ER	Sodium hypochlorite, 5%	FISH	SS290	7681-52-9
4229ER	Sodium molybdate, 2H2O	ALD	33,105-8	10102-40-6
4230ER	Sodium phosphate, dibasic	FISH	S374	7558-79-4
4231ER	Sodium phosphate, dibasic, 7H2O	FISH	S373	7782-85-6
4232ER	Sodium phosphate, monobasic, H2O	MAL	7892	10049-21-5
4235ER	Sodium pyrophosphate, 10H2O	ALD	22,136-8	13472-36-1
4236ER	Sodium sulfide, 9H2O	ALD	20,804-3	1313-84-4
4237ER	Sodium thiosulfate, 5H2O	FISH	S445	10102-17-7
4237ER	Sodium thiosulfate, 5H2O	MAL	8100	10102-17-7
4238ER	Sodium sulfite	ALD	23,932-1	7757-83-7
4240ER	Stabil-coat	BSI	SC01-0125	
4240-1ER	Stannous chloride, anhydrous	ALFA	11535	7772-99-8
4240-1ER	Stannous chloride, anhydrous	P&B	S08390	7772-99-8
4242ER	Starch, soluble	ALD	17,993-0	9005-84-9
4243ER	Sodium succinate, dibasic	ALD	22,473-1	150-90-3
4244ER	Sodium tetraphenylborate	ALD	T2,540-2	143-66-8
4244ER	Sodium tetraphenylborate	ICN	195519	143-66-8
4246ER	Succinic acid	ALD	13,438-4	110-15-6
4246ER	Succinic acid	ICN	102972	110-15-6
4251ER	Sulfanilic acid	ALD	25,191-7	121-57-3
4253ER	Sulfanilamide	FISH	04525	63-74-1
4256ER	Sulfonazo III, Na	P&B	S11790	1738-02-9
4258ER	Syringaldazine	ALD	17,753-9	14414-32-5
4260ER	4-Tertiary-octyl phenol	ALD	29,082-3	140-66-9
4261ER	L-Tartaric acid	ALD	25,138-0	87-69-4
4262ER	Tetrabromophenolphthalein ethyl ester	ACR	42007	1176-74-5
4263ER	Tetrabromophenol blue	ALD	19,931-1	4430-25-5
4264ER	3,4,5,6-Tetrabromophenolsulfonephthalein	ALD	22,735-8	123333-63-1
4265ER	3,3',5,5'-Tetramethylbenzidine, 2HCl, xH2O	ALD	86,151-0	54827-17-7
4266ER	3,3',5,5'-Tetramethylbenzidine	FLU	87748	54827-17-7
4268ER	Thymol blue, Na	ALD	86,136-7	62625-21-2
4269ER	Thymol blue, Na	DUD		62625-21-2
4279ER	Tinuvin 328	C-G	360061/1000	25973-55-1
4282ER	Toluene	FISH	T324	108-88-3
4286ER	Tripyridyltriazine	ALD	15,528-4	3682-35-7
4287ER	2,3,5-Triphenyl tetrazolium chloride	FISH	T413	298-96-4
4288ER	Tris(hydroxymethyl)aminomethane	ALD	T8,760-2	77-86-1
4293ER	Urea	ALD	U270-9	57-13-6
4300ER	Zinc dust	MAL	8681	7440-66-6
4301ER	Zinc acetate, 2H2O	SIG	Z-4540	5970-45-6
4302ER	Zincon, Na	ALD	20,133-2	62625-22-3
4303ER	ZONYL FSN fluorosurfactant, 40%/30% 2-propanol	ALD	42,141-3	65545-80-4
4999ER	Water, RO/DI	ETS		7732-18-5

Abbreviation	Vendor
ACR	Acros
ALD	Aldrich
ALFA	Alfa/Aesar
AQUA	Aqua
BASF	BASF
BAX	Baxter
BD	Becton Dickinson
BDH	British Drug House
B&J	Burdick & Jackson
BM	Boehringer Mannheim
BNGS	Bangs Laboratories
B-R	Bio-Rad
CC	Crystal Chem
C-G	Ciba-Geigy
DIF	Difco
DUD	Dudley
DuP	DuPont
EK	Eastman Kodak
EMER	Emerald Diagnostics, Inc.
EMS	EM Science (EMerck)
ETS	ETS, Inc.
FISH	Fisher
FLU	Fluka
GDS	GDS Technology
GFS	G. Frederick Smith
GIBBS	Gibbs
HACH	Hach Company
HUM	Humco Laboratories
ICI	ICI Americas
ICN	ICN
ISP/GAF	ISP Technologies, Inc.
Jans	Janssen Life Science Products
J M	Johnson/Matthey
JONAS	Jonas
JTB	J.T. Baker
K&K	K & K
LANC	Lancaster
LC	Lab Chem
MAL	Mallinckrodt
MAR	Marshallton
MCB	Matheson, Coleman & Bell
MIL	Miles
MP	Molecular Probes, Inc.
M-S	Miller-Stephenson Chemical Co., Inc.
MVL	MV Laboratories, Inc.
NBS	National Bureau of Standards
OSi	OSi Specialties, Inc.
PAR	Parrish Chemical Co.
P&B	Pfaltz & Bauer
RIC	Ricca
POLY	Polysciences
ResOrg	Research Organics, Inc.
R-P	Rhone-Poulenc
SAN	Santell
SCH	Schweizerhall
SER	Seravac
SERV	Serva
SIG	Sigma
SPE	Spectrum
TCI	TCI America
USB	U.S. Biochemical
VWR	VWR/SP
W&T	Wallace & Tiernan
W-J	Warner-Jenkinson
ZEE	Zeeland Chemicals, Inc.

Further ETS Activity

EXECUTIVE SUMMARY

Surrounding Properties:

Elevations have been determined from the USGS 1 degree Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. EDR's definition of a site with an elevation equal to the subject property includes a tolerance of -10 feet. Sites with an elevation equal to or higher than the subject property have been differentiated below from sites with an elevation lower than the subject property (by more than 10 feet). Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

LUST: Lust List.

A review of the LUST list, as provided by EDR, and dated 11/07/1997 has revealed that there are 2 LUST sites within approximately 0.5 Miles of the subject property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
ELKHART STEEL SERVICE INC	***23321 CR 106***	***1/8 - 1/4 E***	***2***	***9***
CENTURY MOTOR COACH	***53387 ADA DR***	***1/4 - 1/2 NW***	***4***	***11***

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data comes from the Department of Environmental Management's Indiana Registered Underground Storage Tanks list.

A review of the UST list, as provided by EDR, and dated 10/09/1997 has revealed that there is 1 UST site within approximately 0.25 Miles of the subject property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
ELKHART STEEL SERVICE INC	***23321 CR 106***	***1/8 - 1/4 E***	***2***	***9***

RCRIS: The Resource Conservation and Recovery Act database includes selected information on sites that generate, store, treat, or dispose of hazardous waste as defined by the Act. The source of this database is the U.S. EPA.

A review of the RCRIS-LQG list, as provided by EDR, and dated 07/01/1997 has revealed that there is 1 RCRIS-LQG site within approximately 0.25 Miles of the subject property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
SMM CORP	***53364 MARINA DR***	***1/8 - 1/4 NNE***	***3***	***11***

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
FORD METER BOX CO INC	FINDS,RCRIS-LQG,TRIS RCRIS-TSD,CORRACTS,CERC-NFRAP
SYCAMORE STREET	FINDS,CERC-NFRAP,SHWS
US GYPSUM INTERIORS	CERCLIS,FINDS,RCRIS-LQG TRIS,TSCA,UST
GENERAL TIRE & RUBBER CO	CERCLIS,RCRIS-LQG,TRIS CORRACTS
WABASH ALLOYS INC	RCRIS-SQG,FINDS,TRIS CERC-NFRAP
EARTHMOVERS LANDFILL	SWF/LF
ELKHART COUNTY LANDFILL (CR 7 LANDFILL)	SWF/LF
SKYLINE CORP	LUST,IN Spills
SIMONTON LAKE AUTO	LUST
COACHMEN INDUSTRIES INC	LUST
COACHMEN INDUSTRIES INC	LUST
CHIPPEWA SERVICE	UST
ROBBINS REPAIR SERVICE	UST
SULT BODY SHOP	RCRIS-SQG,FINDS
INDOT WABASH SUBDIST	RCRIS-SQG,FINDS
GOFF INC	RCRIS-SQG,FINDS
PENSKE TRUCK LEASING CO LP	RCRIS-SQG,FINDS
BTR ANTIVIBRATION SYSTEMS INC	RCRIS-LQG
BTR ANTIVIBRATION SYSTEMS INC	FINDS

CHECK WHEN WE GET TO ETS-

- Major Roads
- Contour Lines
- Waterways
- Earthquake epicenter, Richter 5 or greater
- Closest Federal Well in quadrant
- Closest State Well in quadrant
- Closest Public Water Supply Well

TARGET PROPERTY:	Environmental Test Systems,Inc.	CUSTOMER:	Hach Company
ADDRESS:	23575 County Rd 106	CONTACT:	Mr. Douglas Baggett
CITY/STATE/ZIP:	Elkhart IN 46992	INQUIRY #:	228062.1s
LAT/LONG:	41.7169 / 85.9178	DATE:	February 11, 1998 5:36 pm

GEOCHECK VERSION 2.1
SUMMARY

TARGET PROPERTY COORDINATES

Latitude (North):	41.716888 - 41° 43' 0.8"
Longitude (West):	85.917809 - 85° 55' 4.1"
Universal Transverse Mercator:	Zone 16
UTM X (Meters):	590023.6
UTM Y (Meters):	4618696.5

GEOLOGIC AGE IDENTIFICATION†

Geologic Code:	M1
Era:	Paleozoic
System:	Mississippian
Series:	Osagean and Kinderhookian Series

ROCK STRATIGRAPHIC UNIT†

Category:	Stratified Sequence

GROUNDWATER FLOW INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, including well data collected on nearby properties, regional groundwater flow information (from deep aquifers), or surface topography.‡

General Topographic Gradient: Undeterminable
General Hydrogeologic Gradient: No hydrogeologic data available.

USGS TOPOGRAPHIC MAP ASSOCIATED WITH THIS SITE

Target Property:	2441085-F8 ELKHART, IN

FEDERAL DATABASE WELL INFORMATION

WELL QUADRANT	DISTANCE FROM TP	LITHOLOGY	DEPTH TO WATER TABLE
Northern	>2 Miles	Not Reported	6 ft.

STATE DATABASE WELL INFORMATION

WELL QUADRANT	DISTANCE FROM TP
Eastern	>2 Miles
Western	1 - 2 Miles

PUBLIC WATER SUPPLY SYSTEM INFORMATION

Searched by Nearest PWS.
NOTE: PWS System location is not always the same as well location.

PWS Name:	ELCONA COUNTRY CLUB (DRINKING FOUNTAIN) P.O. BOX 726 ELKHART, IN 46515
Location Relative to TP:	>2 Miles West
PWS currently has or has had major violation(s):	No

† Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).
‡ U.S. EPA Ground Water Handbook, Vol I: Ground Water and Contamination, Office of Research and development EPA/625/6-90/016a,Chapter 4, page 78, September 1990.

The EDR-Radius Map
with GeoCheck™

Environmental Test Systems,Inc.
23575 County Rd 106
Elkhart, IN 46992

Inquiry Number: 228062.1s

February 11, 1998

Environmental Data Resources, Inc.
an edr company

The Source For Environmental Risk Management Data

3530 Post Road
Southport, Connecticut 06490

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

TABLE OF CONTENTS

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-97. Search distances are per ASTM standard or custom distances requested by the user.

The address of the subject property for which the search was intended is:

23575 COUNTY RD 106
ELKHART, IN 46992

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the subject property or within the ASTM E 1527-97 search radius around the subject property for the following Databases:

NPL:	National Priority List
Delisted NPL:	NPL Deletions
RCRIS-TSD:	Resource Conservation and Recovery Information System
SHWS:	State Haz. Waste
CERCLIS:	Comprehensive Environmental Response, Compensation, and Liability Information System
CERC-NFRAP:	Comprehensive Environmental Response, Compensation, and Liability Information System
CORRACTS:	Corrective Action Report
SWF/LF:	Permitted Solid Waste Facilities
RAATS:	RCRA Administrative Action Tracking System
HMIRS:	Hazardous Materials Information Reporting System
PADS:	PCB Activity Database System
ERNS:	Emergency Response Notification System
TRIS:	Toxic Chemical Release Inventory System
NPL Lien:	NPL Liens
TSCA:	Toxic Substances Control Act
MLTS:	Material Licensing Tracking System
IN Spills:	IN Spills
ROD:	ROD
CONSENT:	Superfund (CERCLA) Consent Decrees
Coal Gas:	Former Manufactured gas (Coal Gas) Sites.

Unmapped (orphan) sites are not considered in the foregoing analysis.

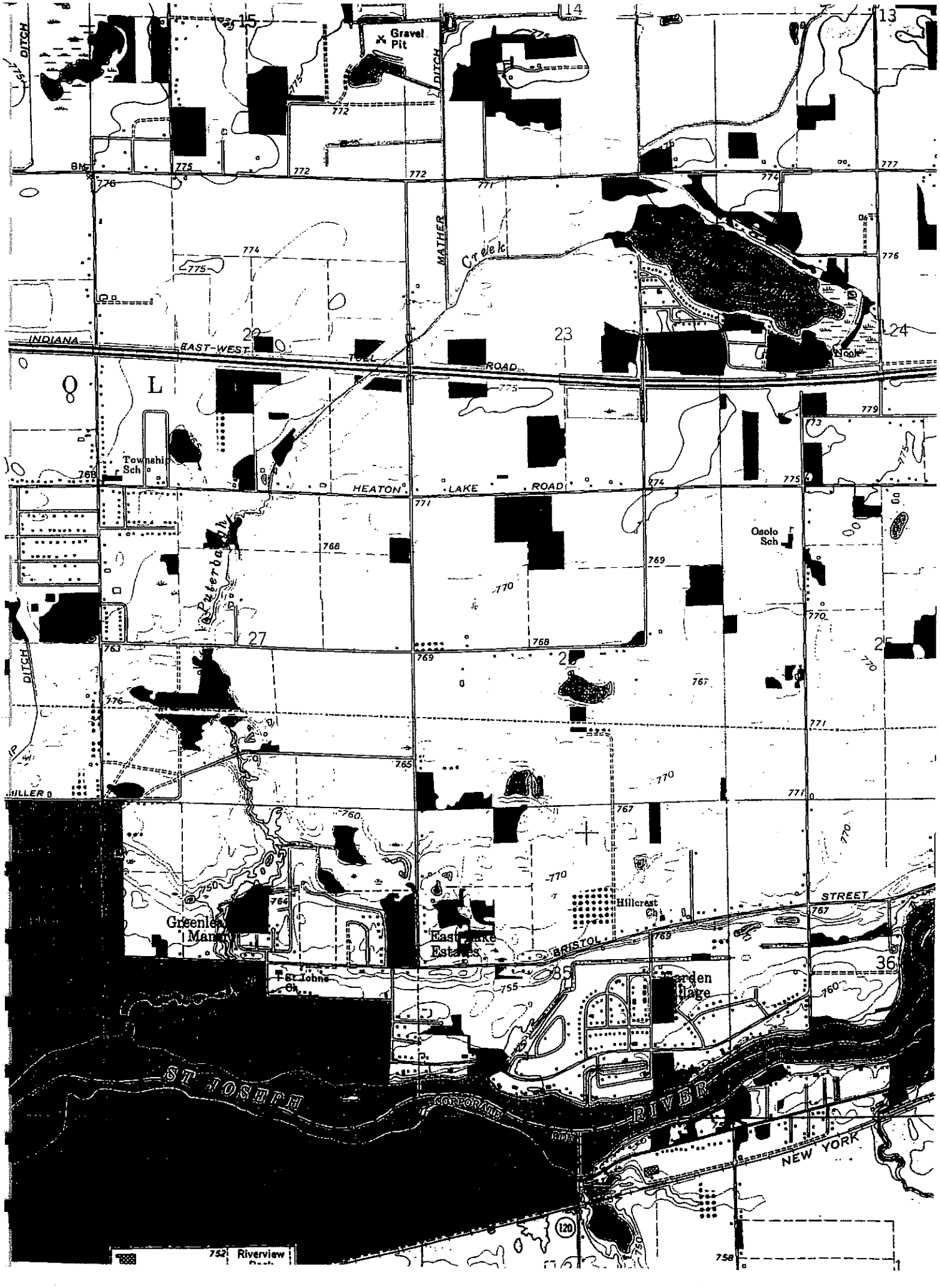
Search Results:

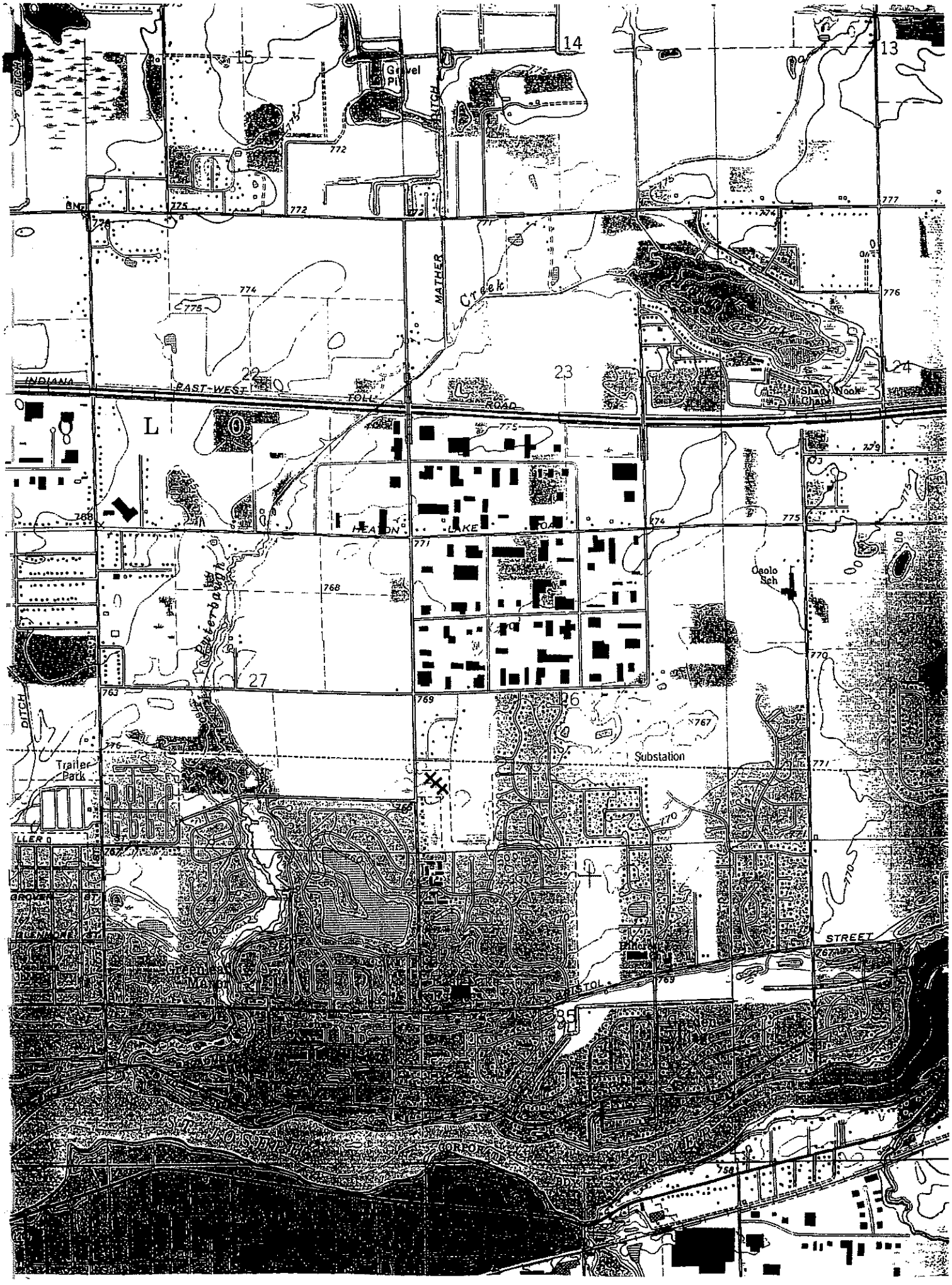
Search results for the subject property and the search radius, are listed below:

Subject Property:

The subject property was identified in the following government records. For more information on this property see page 9 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
ENVIRONMENTAL TEST SYSTEMS INC 23575 CR 106 ELKHART, IN 46514	RCRIS-SQG FINDS	IND152094785


Gravel Pit
DITCH
MATHER
Creek
INDIANA
EAST-WEST
TOLL
ROAD
HEATON
LAKE
ROAD
Township Sch
Osolo Sch
Patterbaugh
Greenlee Manor
East Lake Estates
Hillcrest Ch
St Johns Ch
BRISTOL
STREET
ST JOSEPH
RIVER
NEW YORK
Riverview
752
758
120
13
14
15
23
24
27
36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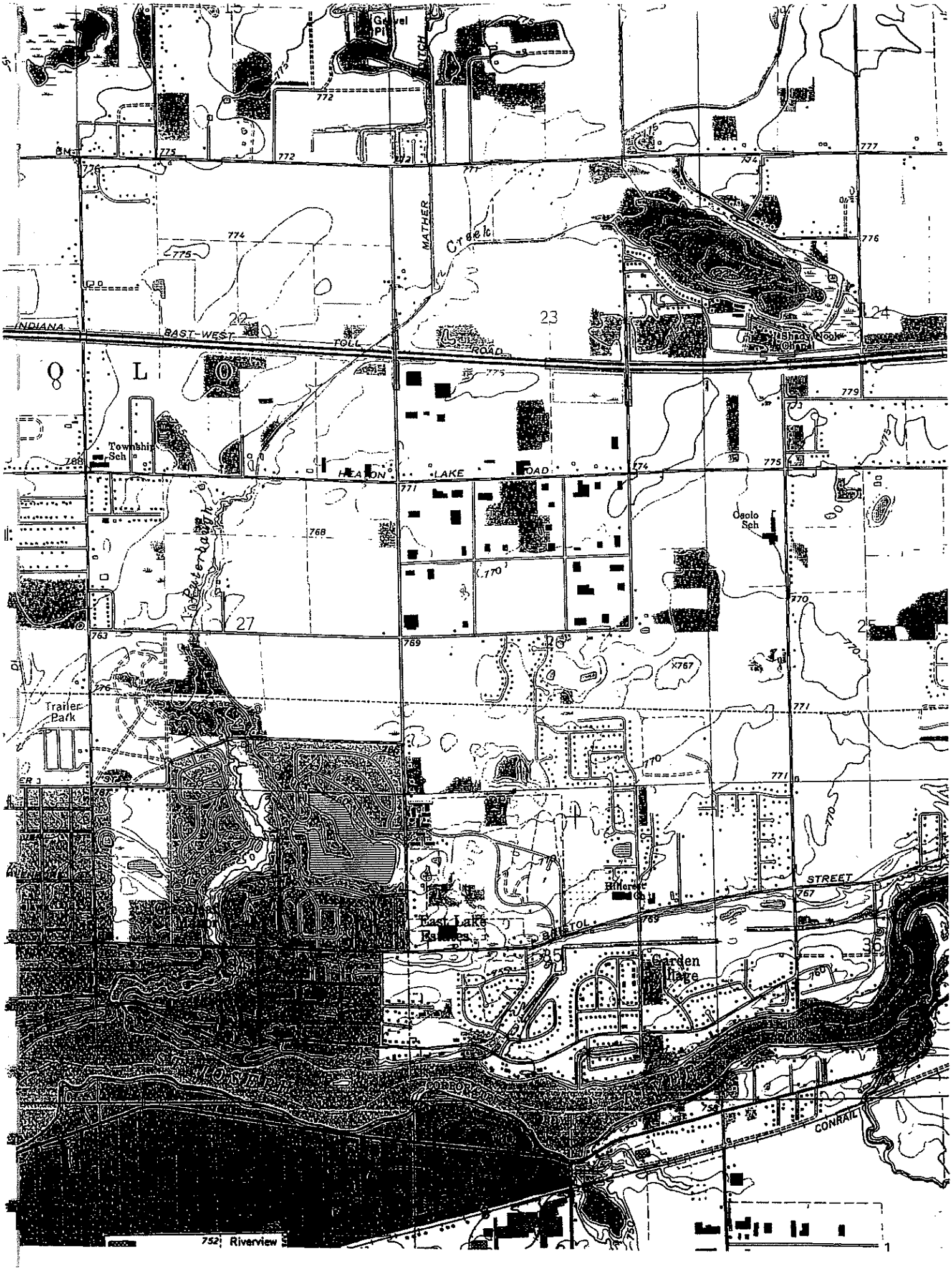
13
15
Gravel Pit
MATHER
Creek
INDIANA
EAST-WEST
TOLL
ROAD
22
23
24
L
HEATON
LAKE
ROAD
Oasis Sch
27
26
Trailer Park
Substation
DITCH
STREET
BRISTOL
Stephen Mayer
ST. JOSEPH
CORPORATION
85


Gravel Pit
MATHER
Creek
INDIANA
EAST-WEST
TOLL
ROAD
HEATON
LAKE
ROAD
Township Sch
Osolo Sch
Trailer Park
East Lake Estates
Garden Place
STREET
CONRAIL
Riverview

GEOCHECK VERSION 2.1
SUMMARY

AREA RADON INFORMATION

EPA Radon Zone for ELKHART County: 1

Note: Zone 1 indoor average level > 4 pCi/L
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L
: Zone 3 indoor average level < 2 pCi/L

Zip Code: 46992

Number of sites tested: 4

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	6.500 pCi/L	0%	100%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	3.975 pCi/L	50%	50%	0%

EXECUTIVE SUMMARY

Surrounding Properties:

Elevations have been determined from the USGS 1 degree Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. EDR's definition of a site with an elevation equal to the subject property includes a tolerance of -10 feet. Sites with an elevation equal to or higher than the subject property have been differentiated below from sites with an elevation lower than the subject property (by more than 10 feet). Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

LUST: Lust List.

A review of the LUST list, as provided by EDR, and dated 11/07/1997 has revealed that there are 2 LUST sites within approximately 0.5 Miles of the subject property.

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ELKHART STEEL SERVICE INC	***23321 CR 106***	***1/8 - 1/4 E***	***2***	***9***
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A review of the UST list, as provided by EDR, and dated 10/09/1997 has revealed that there is 1 UST site within approximately 0.25 Miles of the subject property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
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RCRIS: The Resource Conservation and Recovery Act database includes selected information on sites that generate, store, treat, or dispose of hazardous waste as defined by the Act. The source of this database is the U.S. EPA.

A review of the RCRIS-LQG list, as provided by EDR, and dated 07/01/1997 has revealed that there is 1 RCRIS-LQG site within approximately 0.25 Miles of the subject property.

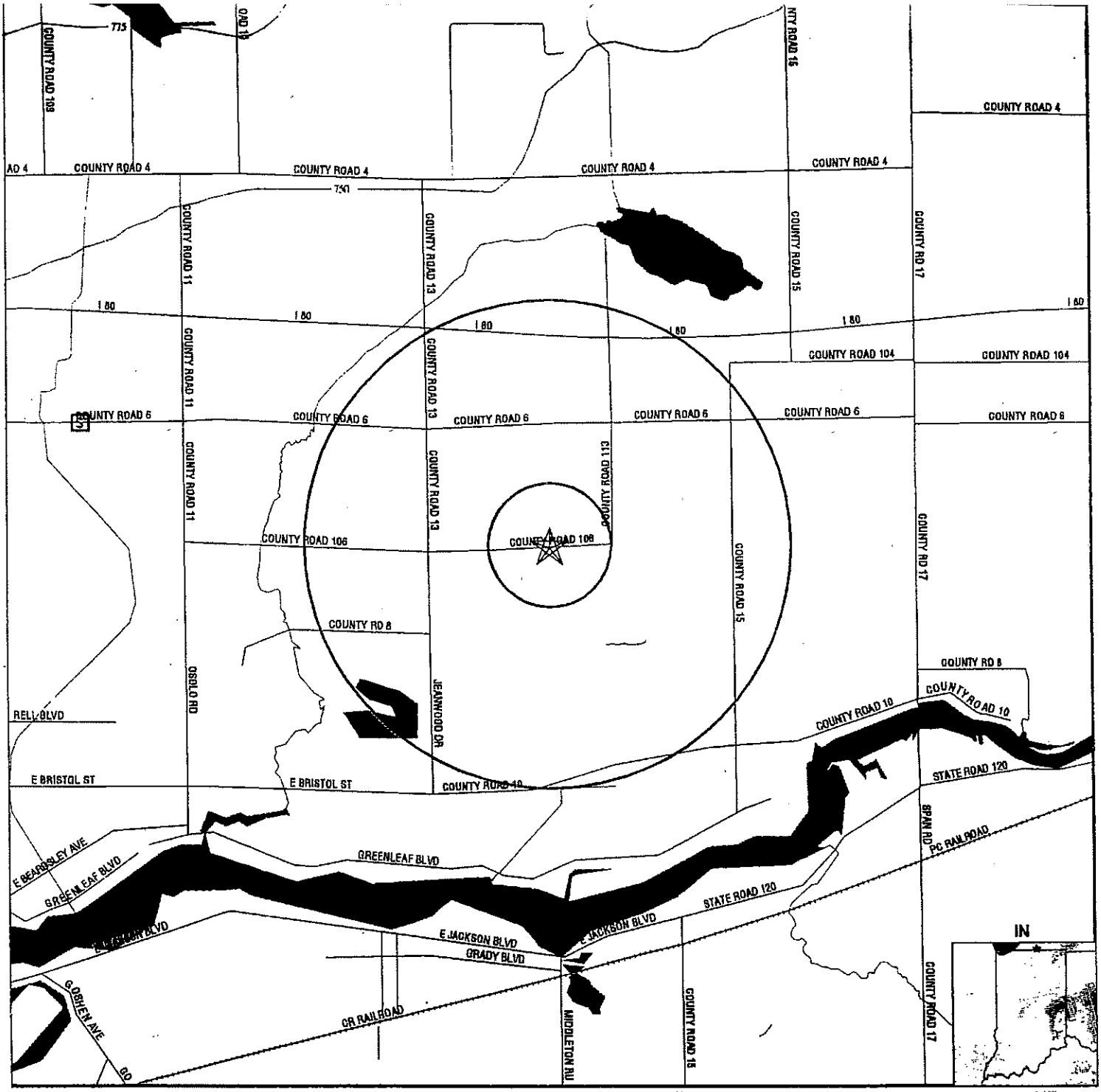
Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
SMM CORP	***53364 MARINA DR***	***1/8 - 1/4 NNE***	***3***	***11***

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
FORD METER BOX CO INC	FINDS,RCRIS-LQG,TRIS RCRIS-TSD,CORRACTS,CERC-NFR/
SYCAMORE STREET US GYPSUM INTERIORS	FINDS,CERC-NFRAP,SHWS CERCLIS,FINDS,RCRIS-LQG TRIS,TSCA,UST
GENERAL TIRE & RUBBER CO	CERCLIS,RCRIS-LQG,TRIS CORRACTS
WABASH ALLOYS INC	RCRIS-SQG,FINDS,TRIS CERC-NFRAP
EARTHMOVERS LANDFILL	SWF/LF
ELKHART COUNTY LANDFILL (CR 7 LANDFILL)	SWF/LF
SKYLINE CORP	LUST,IN Spills
SIMONTON LAKE AUTO	LUST
COACHMEN INDUSTRIES INC	LUST
COACHMEN INDUSTRIES INC	LUST
CHIPPEWA SERVICE	UST
ROBBINS REPAIR SERVICE	UST
SULT BODY SHOP	RCRIS-SQG,FINDS
INDOT WABASH SUBDIST	RCRIS-SQG,FINDS
GOFF INC	RCRIS-SQG,FINDS
PENSKE TRUCK LEASING CO LP	RCRIS-SQG,FINDS
BTR ANTIVIBRATION SYSTEMS INC	RCRIS-LQG
BTR ANTIVIBRATION SYSTEMS INC	FINDS

CHECK WHEN WE GET TO ETS-



- Major Roads
- Contour Lines
- Waterways
- Earthquake epicenter, Richter 5 or greater
- Closest Federal Well in quadrant
- Closest State Well in quadrant
- Closest Public Water Supply Well

TARGET PROPERTY:	Environmental Test Systems,Inc.	CUSTOMER:	Hach Company
ADDRESS:	23575 County Rd 106	CONTACT:	Mr. Douglas Baggett
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GEOCHECK VERSION 2.1
SUMMARY

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Longitude (West):	85.917809 - 85° 55' 4.1"
Universal Transverse Mercator:	Zone 16
UTM X (Meters):	590023.6
UTM Y (Meters):	4618696.5

GEOLOGIC AGE IDENTIFICATION†

Geologic Code:	M1
Era:	Paleozoic
System:	Mississippian
Series:	Osagean and Kinderhookian Series

ROCK STRATIGRAPHIC UNIT†

Category:	Stratified Sequence

GROUNDWATER FLOW INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, including well data collected on nearby properties, regional groundwater flow information (from deep aquifers), or surface topography.‡

General Topographic Gradient: Undeterminable
General Hydrogeologic Gradient: No hydrogeologic data available.

USGS TOPOGRAPHIC MAP ASSOCIATED WITH THIS SITE

Target Property:	2441085-F8 ELKHART, IN

FEDERAL DATABASE WELL INFORMATION

WELL QUADRANT	DISTANCE FROM TP	LITHOLOGY	DEPTH TO WATER TABLE
Northern	>2 Miles	Not Reported	6 ft.

STATE DATABASE WELL INFORMATION

WELL QUADRANT	DISTANCE FROM TP
Eastern	>2 Miles
Western	1 - 2 Miles

PUBLIC WATER SUPPLY SYSTEM INFORMATION

Searched by Nearest PWS.
NOTE: PWS System location is not always the same as well location.

PWS Name:	ELCONA COUNTRY CLUB (DRINKING FOUNTAIN) P.O. BOX 726 ELKHART, IN 46515
Location Relative to TP:	>2 Miles West
PWS currently has or has had major violation(s):	No

† Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994)
‡ U.S. EPA Ground Water Handbook, Vol I: Ground Water and Contamination, Office of Research and development EPA/625/6-90/016a,Chapter 4, page 76, September 1990

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Elapsed ASTM days: Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement of the ASTM standard.

FEDERAL ASTM RECORDS:

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System
Source: EPA/NTIS
Telephone: 703-413-0223
CERCLIS: CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 08/01/97
Date Made Active at EDR: 11/28/97
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 10/01/97
Elapsed ASTM days: 58
Date of Last EDR Contact: 01/05/98

ERNS: Emergency Response Notification System
Source: EPA/NTIS
Telephone: 202-260-2342
ERNS: Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/01/97
Date Made Active at EDR: 10/09/97
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 08/29/97
Elapsed ASTM days: 41
Date of Last EDR Contact: 12/01/97

NPL: National Priority List
Source: EPA
Telephone: 703-603-8852
NPL: National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC).

Date of Government Version: 09/25/97
Date Made Active at EDR: 11/28/97
Database Release Frequency: Semi-Annually
Date of Data Arrival at EDR: 09/26/97
Elapsed ASTM days: 63
Date of Last EDR Contact: 01/02/98

RCRIS: Resource Conservation and Recovery Information System
Source: EPA/NTIS
Telephone: 800-424-9346
RCRIS: Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).

Date of Government Version: 07/01/97
Date Made Active at EDR: 11/28/97
Database Release Frequency: Semi-Annually
Date of Data Arrival at EDR: 09/13/97
Elapsed ASTM days: 76
Date of Last EDR Contact: 11/03/97

CORRACTS: Corrective Action Report
Source: EPA
Telephone: 800-424-9346
CORRACTS: CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 10/01/97
Date Made Active at EDR: 12/05/97
Database Release Frequency: Semi-Annually
Date of Data Arrival at EDR: 11/06/97
Elapsed ASTM days: 29
Date of Last EDR Contact: 01/05/98

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FEDERAL NON-ASTM RECORDS:

BRS: Biennial Reporting System
Source: EPA/NTIS
Telephone: 800-424-9346
BRS: The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/95
Database Release Frequency: Biennially
Date of Last EDR Contact: 12/22/97
Date of Next Scheduled EDR Contact: 03/23/98

CONSENT: Superfund (CERCLA) Consent Decrees
Source: EPA Regional Offices
Telephone: Varies
Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: Varies
Database Release Frequency: Varies
Date of Last EDR Contact: Varies
Date of Next Scheduled EDR Contact: N/A

FINDS: Facility Index System
Source: EPA/NTIS
Telephone: 703-908-2493
FINDS: Facility Index System. FINDS contains both facility information and "pointers" to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 04/01/97
Database Release Frequency: Quarterly
Date of Last EDR Contact: 01/23/98
Date of Next Scheduled EDR Contact: 04/06/98

HMIRS: Hazardous Materials Information Reporting System
Source: U.S. Department of Transportation
Telephone: 202-366-4526
HMIRS: Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/96
Database Release Frequency: Annually
Date of Last EDR Contact: 01/27/98
Date of Next Scheduled EDR Contact: 04/27/98

MLTS: Material Licensing Tracking System
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 07/28/97
Database Release Frequency: Quarterly
Date of Last EDR Contact: 01/12/98
Date of Next Scheduled EDR Contact: 04/13/98

NPL LIENS: Federal Superfund Liens
Source: EPA
Telephone: 205-564-4267
NPL LIENS: Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/91
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 11/24/97
Date of Next Scheduled EDR Contact: 02/23/98

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PADS: PCB Activity Database System
Source: EPA
Telephone: 202-260-3936
PADS: PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 03/27/97
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 11/17/97
Date of Next Scheduled EDR Contact: 02/16/98

RAATS: RCRA Administrative Action Tracking System
Source: EPA
Telephone: 202-564-4104
RAATS: RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/95
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 12/15/97
Date of Next Scheduled EDR Contact: 03/16/98

ROD: Records Of Decision
Source: NTIS
Telephone: 703-416-0223
Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 03/31/95
Database Release Frequency: Annually

Date of Last EDR Contact: 12/12/97
Date of Next Scheduled EDR Contact: 03/02/98

TRIS: Toxic Chemical Release Inventory System
Source: EPA/NTIS
Telephone: 202-260-1531
TRIS: Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/95
Database Release Frequency: Annually

Date of Last EDR Contact: 12/23/97
Date of Next Scheduled EDR Contact: 03/30/98

TSCA: Toxic Substances Control Act
Source: EPA/NTIS
Telephone: 202-260-1444
TSCA: Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site. USEPA has no current plan to update and/or re-issue this database.

Date of Government Version: 01/31/95
Database Release Frequency: Annually

Date of Last EDR Contact: 12/15/97
Date of Next Scheduled EDR Contact: 03/16/98

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STATE OF INDIANA ASTM RECORDS:

LUST: Lust List
Source: Department of Environmental Management
Telephone: 317-308-3008
LUST: Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 11/07/97
Date Made Active at EDR: 12/29/97
Database Release Frequency: Annually
Date of Data Arrival at EDR: 12/01/97
Elapsed ASTM days: 28
Date of Last EDR Contact: 11/10/97

SHWS: List of Hazardous Waste Response Sites Scored Using the Indiana Scoring Model
Source: Department of Environmental Management
Telephone: 317-308-3052
SHWS: State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 12/10/96
Date Made Active at EDR: 02/10/97
Database Release Frequency: Annually
Date of Data Arrival at EDR: 01/13/97
Elapsed ASTM days: 28
Date of Last EDR Contact: 01/05/98

LF: Permitted Solid Waste Facilities
Source: Department of Environmental Management
Telephone: 317-232-0066
SWF/LF: Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 07/01/97
Date Made Active at EDR: 08/26/97
Database Release Frequency: Semi-Annually
Date of Data Arrival at EDR: 07/14/97
Elapsed ASTM days: 43
Date of Last EDR Contact: 01/16/98

UST: Indiana Registered Underground Storage Tanks
Source: Department of Environmental Management
Telephone: 317-308-3008
UST: Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 10/09/97
Date Made Active at EDR: 12/12/97
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 11/14/97
Elapsed ASTM days: 28
Date of Last EDR Contact: 01/05/98

STATE OF INDIANA NON-ASTM RECORDS:

SPILLS: Spills Incidents
Source: Department of Environmental Management
Telephone: 317-308-3008

Date of Government Version: 10/09/97
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 12/15/97
Date of Next Scheduled EDR Contact: 03/16/98

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Historical and Other Database(s)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

Former Manufactured Gas (Coal Gas) Sites: The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

Disclaimer Provided by Real Property Scan, Inc.

The information contained in this report has predominantly been obtained from publicly available sources produced by entities other than Real Property Scan. While reasonable steps have been taken to insure the accuracy of this report, Real Property Scan does not guarantee the accuracy of this report. Any liability on the part of Real Property Scan is strictly limited to a refund of the amount paid. No claim is made for the actual existence of toxins at any site. This report does not constitute a legal opinion.

DELISTED NPL: Delisted NPL Sites
Source: EPA
Telephone: 703-603-8769
DELISTED NPL: The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

NFRAP: Comprehensive Environmental Response, Compensation, and Liability Information System
Source: EPA/NTIS
Telephone: 703-413-0223
NFRAP: As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

Date of Government Version: 06/01/97
Date Made Active at EDR: 08/09/97
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 07/14/97
Elapsed ASTM days: 26
Date of Last EDR Contact: 01/05/98

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-260-2805
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-260-2805
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SWDIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Area Radon Information: The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

Oil/Gas Pipelines/Electrical Transmission Lines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines and electrical transmission lines.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

USGS Water Wells: In November 1971 the United States Geological Survey (USGS) implemented a national water resource information tracking system. This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on more than 900,000 wells, springs, and other sources of groundwater.

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1996 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Water Dams: National Inventory of Dams
Source: Federal Emergency Management Agency
Telephone: 202-646-2801
WATER DAMS: National computer database of more than 74,000 dams maintained by the Federal Emergency Management Agency.

Indiana Community and Non-Community Wells
Source: Department of Environmental Management
Telephone: 317-323-4166

Appendix J
Results of Environmental Study Performed Following Fabwel Plastics Chemical Fire

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

ELKHART COUNTY HEALTH DEPARTMENT
50 YEARS 1949-1999

Environmental Health Services
4230 Elkhart Road
U.S. 33 & C.R. 26
Goshen, Indiana 46526
(219) 875-3391

Frederick W. Bigler, M.D.
Health Officer

Fax

To: BILL HAUGNOR **From:** JOHN HUGHES

Fax: 315-449-4111 **Date:** 4/20/99

Phone: **Pages:** 4

Re: **CC:**

☐ Urgent ☐ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

Comments:

5.0 CONCLUSIONS/RECOMMENDATIONS

During March through May of 1998, extensive soil and groundwater monitoring was conducted to determine if fire suppression water used to extinguish a fire that destroyed the Fabwel Plastics facility on March 15 and 16, 1998, had an adverse impact on soils and groundwater in the area. Based on the data that was generated, ATC's conclusions and recommendations are:

1) VOC and SVOC compounds were present in samples collected from the pools of "fire water" immediately following the suppression of the fire. However, no significant concentrations of metals were observed in any of the samples. The fire suppression water completely dissipated within a few days of the fire through infiltration and evaporation.

2) Soil boring and hand auger boring investigations conducted in the study area revealed that VOC and SVOCs are not present in the soil above the IDEM OER VRP Tier II Cleanup Goals for Nonresidential Scenario in the surface soils (<1 ft), and subsurface soils (>1 ft). ATC concludes that no further action is necessary regarding the soils in the stormwater retention pond and other depressional areas where fire suppression water collected and dissipated.

3) A water supply well investigation was conducted on adjacent off-site properties. VOCs and SVOCs in offsite groundwater were not detected and, thus, were not present above applicable EPA MCLs. The water supply well sampling data demonstrates that the fire suppression water has had no adverse impact on the aquifer offsite in the vicinity of the groundwater extraction points. ATC concludes that no further action is warranted with regard to the offsite water supply wells.

4) The VOC benzene was reported slightly above the EPA MCL in groundwater extracted from the monitoring wells onsite. No other VOCs or SVOCs were detected above MCLs. Groundwater data has demonstrated that benzene is decreasing through natural attenuation processes such as volatilization, biodegradation, dispersion and adsorption. This decrease is spatially delineated in Figure 4. In addition, ATC has estimated the groundwater flow rate for the site at 6.2 ft/yr. Based on the pattern of decreasing benzene concentrations and the existing benzene levels ranging from 3.7 to 21 ppb, ATC believes that natural attenuation processes are reducing benzene concentrations in the onsite groundwater faster than the groundwater flow rate. Therefore, benzene concentrations above the MCL of 5 ppb are not expected to extend much beyond the site boundary and will likely continue to recede inward toward the center of the plume. ATC concludes that no further action is warranted with regard to the onsite groundwater quality.

5) The site has been razed and the property owner intends connect the new structure to the municipal water supply. ATC recommends that the "out of service" water supply well (FWW) be permanently closed by the property owner through the services of a licensed water well driller.

6) Fabwel's intent has been that copies of this report be sent to the Elkhart County Health Department and the IDEM Office of Emergency Response for review. Upon the issuance of a no further action letter by the agencies, ATC recommends that the four monitoring wells be decommissioned by the property owner through the services of a licensed water well driller.

Appendix K
Analytical Results of Septic Tank Samples

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

December 3, 1992

Mr. Mike Presnal
Environmental Test Systems
P.O. Box 4659
Elkhart, IN 46514

Dear Mike:

Enclosed please find the laboratory analytical report on the two septic tank samples collected from your facility on 10-30-92.

A low level of Toluene (below drinking water standards) was found in the sample from the tank on the east side of the building. However, the sample from the tank on the southwest side of the building was found to contain relatively high levels of 1,1-Dichloroethene and 1,1,1-Trichloroethane.

Please call if you have any questions.

Sincerely,

EIS ENVIRONMENTAL ENGINEERS, INC.

John R. Wingard, P.E.
Senior Engineer

JRW/lah

Encl.

ANALYTICAL REPORT

Client:
Mr Mike Presnal
Environmental Test Systems
P.O. Box 4659
Elkhart, Indiana 46514
1-262-2060

Report Date: 12-02-92

EIS Lab No: 6163
EIS Project No: 2019-5203-92
EIS Priority: 4
Client P.O.#: LOA 102792

Invoice To:
Project 5203-92

SAMPLE IDENTIFICATION
Sample ID: S 2
EAST SIDE OF BLDG
Date Sampled: 10-30-92
Date Received: 10-30-92

Report To:
Mr John R. Wingard

Extra Report To:

PARAMETER	UNITS	RESULT	TEST DATE	ANALYST	QUALITY CONTROL %RSD	%R
VOC		*	11-11-92	Miller,J		

* See Attached ORGANICS REPORT

SUPPORT INFORMATION

A Trip Blank showed no contaminants of interest.
Chromatograms of the analysis are enclosed.
Chain-of-Custody document is enclosed

LABORATORY DIRECTOR

701.Rev (04-07-92)

ORGANICS REPORT

SAMPLE ID: S 2
EAST SIDE OF BLDG

REPORT DATE: 12/02/92
EIS LAB NO: 6163

SURROGATE RECOVERY (Method 601 + 602)

Compound Name	QC Limits	% Recovery
1-Bromo-2-chloroethane	70 - 130	75
1,4-Dichlorobutane	70 - 130	89
Toluene,d8	70 - 130	101
1,9-Decadiene	70 - 130	101

DEFINITIONS

- ppb = Parts per billion = micrograms per liter (µg/l)
- ND = Not Detected
- EQL = Estimated Quantitation Limit, in ppb, for a sample which did not require a dilution prior to analysis. EQL can be thought of as a "Detection Limit".

  If the sample dilution is shown as None (and the EQL Multiplier is 1), interpret Not Detected results according to the EQL values shown. An example is [Styrene = ND at a Detection Limit of 1 ppb]

  If this sample required a dilution, the values in the EQL column must be multiplied by the EQL Multiplier prior to interpreting Not Detected results. An example is [Styrene = ND and EQL Multiplier = 10 Styrene was Not Detected at a Detection Limit of 10 ppb]

  The EQL Multiplier is not used to adjust values shown in the result column. Result values have been corrected for dilutions.
- [ ] = Detected but below EQL and the result shown is an estimate.
- The * compound (1,1,2-TCTFE) is 1,1,2-Trichloro-1,2,2-trifluoroethane.
- Petroleum Hydrocarbons, if their presence is noted in this analysis, are reported in terms of #2 fuel oil. No attempt has been made to identify the product responsible for the Petroleum Hydrocarbon response.

ORGANICS REPORT

SAMPLE ID: S 2
EAST SIDE OF BLDG

REPORT DATE: 12/02/92
EIS LAB NO: 6163

VOLATILE ORGANIC COMPOUNDS/PETROLEUM HYDROCARBONS

Analysis Method: 601 + 602
Reporting Units: ppb

Abbreviations and report symbols are explained on the following page

Sample Dilution: 1/10
EQL Multiplier: 10

COMPOUND NAME	RESULT	EQL
Acetone	ND	10
Benzene	ND	1
Bromobenzene	ND	1
Bromochloromethane	ND	1
Bromodichloromethane	ND	1
Bromoform	ND	2
Bromomethane	ND	5
n-Butyl Benzene	ND	2
Sec-Butyl Benzene	ND	2
tert-Butyl Benzene	ND	2
Carbon Tetrachloride	ND	2
Chlorobenzene	ND	1
Chlorodibromomethane	ND	1
Chloroethane	ND	5
Chloroform	ND	1
1-Chlorohexane	ND	2
Chloromethane	ND	10
2-Chlorotoluene	ND	1
4-Chlorotoluene	ND	1
1,2-Dibromoethane	ND	1
1,2-Dichlorobenzene	ND	2
1,3-Dichlorobenzene	ND	2
1,4-Dichlorobenzene	ND	2
Dichlorodifluoromethane	ND	5
1,1-Dichloroethane	ND	1
1,2-Dichloroethane	ND	1
1,1-Dichloroethene	ND	2
c-1,2-Dichloroethene	ND	1
t-1,2-Dichloroethene	ND	1
Dichlorofluoromethane	ND	5
1,2-Dichloropropane	ND	1
1,3-Dichloropropane	ND	2
1,1-Dichloropropene	ND	2

COMPOUND NAME	RESULT	EQL
c-1,3-Dichloropropene	ND	2
t-1,3-Dichloropropene	ND	2
Diethyl Ether	ND	10
Ethylbenzene	ND	1
Hexachlorobutadiene	ND	2
2-Hexanone	ND	10
Isopropyl Benzene	ND	2
p-Isopropyltoluene	ND	2
Methylene Chloride	ND	2
Methyl Ethyl Ketone	ND	10
Methyl Isobutyl Ketone	ND	10
Naphthalene	ND	2
n-Propyl Benzene	ND	2
Styrene	ND	1
tert-Butyl Methyl Ether	ND	2
1,1,1,2-Tetrachloroethane	ND	2
1,1,2,2-Tetrachloroethane	ND	2
Tetrachloroethene	ND	1
Tetrahydrofuran	ND	10
Toluene	54	1
1,2,3-Trichlorobenzene	ND	1
1,2,4-Trichlorobenzene	ND	1
1,1,1-Trichloroethane	ND	1
1,1,2-Trichloroethane	ND	1
Trichloroethene	ND	1
Trichlorofluoromethane	ND	2
1,2,3-Trichloropropane	ND	5
1,1,2-TCTFE*	ND	2
1,2,4-Trimethylbenzene	ND	2
1,3,5-Trimethylbenzene	ND	2
Vinyl Chloride	ND	2
m + p-Xylenes	ND	1
o-Xylene	ND	1
PETROLEUM HYDROCARBONS	ND	200

E.

ANALYTICAL REPORT

Client:

Mr Mike Presnal
Environmental Test Systems
P.O. Box 4659
Elkhart, Indiana 46514
1-262-2060

Report Date: 12-02-92

EIS Lab No: 6162
EIS Project No: 2019-5203-92
EIS Priority: 4
Client P.O.#: LOA 102792

Invoice To:
Project 5203-92

SAMPLE IDENTIFICATION

Sample ID: S 1
S W SIDE OF BLDG
Date Sampled: 10-30-92
Date Received: 10-30-92

Report To:
Mr John R. Wingard

Extra Report To:

PARAMETER	UNITS	RESULT	TEST DATE	ANALYST	QUALITY CONTROL %RSD	%R
VOC		*	11-11-92	Miller,J		

* See Attached ORGANICS REPORT

UPPORT INFORMATION

\ Trip Blank showed no contaminants of interest.
hromatograms of the analysis are enclosed.
Chain-of-Custody document is enclosed

Andi Poziti
LABORATORY DIRECTOR

ORGANICS REPORT

SAMPLE ID: S 1
S W SIDE OF BLDG

REPORT DATE: 12/02/92
EIS LAB NO: 6162

SURROGATE RECOVERY (Method 601 + 602)

Compound Name	QC Limits	% Recovery
1-Bromo-2-chloroethane	70 - 130	92
1,4-Dichlorobutane	70 - 130	112
Toluene,d8	70 - 130	97
1,9-Decadiene	70 - 130	103

DEFINITIONS

- ppb = Parts per billion = micrograms per liter (µg/1)
- ND = Not Detected
- EQL = Estimated Quantitation Limit, in ppb, for a sample which did not require a dilution prior to analysis. EQL can be thought of as a "Detection Limit".

  If the sample dilution is shown as None (and the EQL Multiplier is 1), interpret Not Detected results according to the EQL values shown. An example is [Styrene = ND at a Detection Limit of 1 ppb]

  If this sample required a dilution, the values in the EQL column must be multiplied by the EQL Multiplier prior to interpreting Not Detected results. An example is [Styrene = ND and EQL Multiplier = 10 Styrene was Not Detected at a Detection Limit of 10 ppb]

  The EQL Multiplier is not used to adjust values shown in the result column. Result values have been corrected for dilutions.
- [ ] = Detected but below EQL and the result shown is an estimate.
- The * compound (1,1,2-TCTFE) is 1,1,2-Trichloro-1,2,2-trifluoroethane.
- Petroleum Hydrocarbons, if their presence is noted in this analysis, are reported in terms of #2 fuel oil. No attempt has been made to identify the product responsible for the Petroleum Hydrocarbon response.

ORGANICS REPORT

SAMPLE ID: S 1
S W SIDE OF BLDG

REPORT DATE: 12/02/92
EIS LAB NO: 6162

VOLATILE ORGANIC COMPOUNDS/PETROLEUM HYDROCARBONS

Analysis Method: 601 + 602
Reporting Units: ppb

Abbreviations and report symbols are explained on the following page

Sample Dilution: 1/50
EQL Multiplier: 50

COMPOUND NAME	RESULT	EQL	COMPOUND NAME	RESULT	EQL
Acetone	ND	10	c-1,3-Dichloropropene	ND	2
Benzene	ND	1	t-1,3-Dichloropropene	ND	2
Bromobenzene	ND	1	Diethyl Ether	ND	10
Bromochloromethane	ND	1	Ethylbenzene	ND	1
Bromodichloromethane	ND	1	Hexachlorobutadiene	ND	2
Bromoform	ND	2	2-Hexanone	ND	10
Bromomethane	ND	5	Isopropyl Benzene	ND	2
n-Butyl Benzene	ND	2	p-Isopropyltoluene	ND	2
Sec-Butyl Benzene	ND	2	Methylene Chloride	ND	2
tert-Butyl Benzene	ND	2	Methyl Ethyl Ketone	ND	10
Carbon Tetrachloride	ND	2	Methyl Isobutyl Ketone	ND	10
Chlorobenzene	ND	1	Naphthalene	ND	2
Chlorodibromomethane	ND	1	n-Propyl Benzene	ND	2
Chloroethane	ND	5	Styrene	ND	1
Chloroform	ND	1	tert-Butyl Methyl Ether	ND	2
1-Chlorohexane	ND	2	1,1,1,2-Tetrachloroethane	ND	2
Chloromethane	ND	10	1,1,2,2-Tetrachloroethane	ND	2
2-Chlorotoluene	ND	1	Tetrachloroethene	ND	1
4-Chlorotoluene	ND	1	Tetrahydrofuran	ND	10
1,2-Dibromoethane	ND	1	Toluene	ND	1
1,2-Dichlorobenzene	ND	2	1,2,3-Trichlorobenzene	ND	1
1,3-Dichlorobenzene	ND	2	1,2,4-Trichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	2	1,1,1-Trichloroethane	[redacted]	1
Dichlorodifluoromethane	ND	5	1,1,2-Trichloroethane	ND	1
1,1-Dichloroethane	[redacted]	1	Trichloroethene	ND	1
1,2-Dichloroethane	ND	1	Trichlorofluoromethane	ND	2
1,1-Dichloroethene	[redacted]	2	1,2,3-Trichloropropane	ND	5
c-1,2-Dichloroethene	ND	1	1,1,2-TCTFE*	ND	2
t-1,2-Dichloroethene	ND	1	1,2,4-Trimethylbenzene	ND	2
Dichlorofluoromethane	ND	5	1,3,5-Trimethylbenzene	ND	2
1,2-Dichloropropane	ND	1	Vinyl Chloride	ND	2
1,3-Dichloropropane	ND	2	m + p-Xylenes	ND	1
1,1-Dichloropropene	ND	2	o-Xylene	ND	1
			PETROLEUM HYDROCARBONS	ND	200

Appendix L
Correspondence Regarding Air Emissions Violations

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live

Frank O'Bannon
Governor

John M. Hamilton
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

Via Certified Mail

July 15, 1997

Mr. William Melchur
Environmental Test Systems, Inc.
P.O. Box 4659
Elkhart Indiana 46514-0659

Re: Violation Letter
Emission Limit and 326 IAC 8-2-5
Permit Number: CP 039-3039-00187

Dear Mr. Melchur:

Greg Wingstrom of my staff has reviewed the quarterly reports submitted by Environmental Test Systems, Inc. Located at 23575 County Road 106 in Elkhart, Indiana. The quarterly reports are required to be submitted in accordance with Operation Condition Number 5 of Permit Number CP 039-3039-00187.

The reports indicate that Environmental Test Systems, Inc. Has exceeded the 14.9 pounds of VOC input per day emission limit contained in Operation Condition Number 4 of the above referenced permit for the Tunnel 1-9 coating line during the third and fourth quarters of 1996. The limitation is in a fixed daily limit, not a quarterly average limit. Therefore, based on the permit and the provisions of 326 IAC 8-1 (copy enclosed) this line is now subject to 326 IAC 8-2-5 (copy enclosed).

The reports also indicate that Environmental Test Systems, Inc. Has exceeded the 14.9 pounds of VOC input per day emission limit contained in Operation Condition Number 4 of the above referenced permit for the Tunnel 3-8 coating line during the third quarter of 1996. The Limitation is in a fixed daily limit, not a quarterly average limit. Therefore, based on the permit and the provisions of 325 IAC 8-1 this line is now subject to 326 IAC 8-2-5.

Additionally, based upon a review of the permit application a number of the coatings used in the Tunnel 1-9 and Tunnel 3-8 coating lines are not compliant with the provisions of 326 IAC 8-2-5.

Within 20 days of the date of this letter, please submit a letter of intent to comply with 326 IAC 8-2-5 and pursuant to 326 IAC 8-1 the compliance methods which will be utilized for the Tunnel 1-9 and Tunnel 3-8 coating lines.

If you have any questions regarding this matter, please contact Greg Wingstrom of this office at the above address or via phone ad 317/233-5674.

Sincerely,

Herm Carney, Chief
Air Compliance Section I
Office of Air Management

GDW/je

Enclosures:
cc: Doug Elliott
File:Elkhart County
Rule Development Section

ENVIRONMENTAL TEST SYSTEMS, INC
23575 COUNTY ROAD 106
ELKHART, IN 46514
(219) 262-2060
FAX: (219) 262-2495

July 29, 1997

Herm Carney, Chief
Air Compliance Section I
Office of Air Management, IDEM
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

Re: Violation Letter Permit No. CP 039-3039-00187

Dear Mr. Carney:

This letter is the response of Environmental Test Systems, Inc. to your letter of July 15, 1997 regarding our status with respect to compliance with VOC emission limits contained in permit No CP 039-3039-00187.

We had a very helpful and informative meeting with Mr. Greg Wingstrom of your staff on July 29, 1997. There was general consensus at this meeting that a Site Specific RACT would be the most appropriate approach to pursue.

ETS will work with the IDEM staff to clarify whether the Paper Coating Rule applies to our processes. Subsequently, ETS will submit an amendment to our existing permit or submit a Title V permit application by October 31, 1997. This submittal will include updating the existing Site Specific RACT analysis that ETS filed with IDEM in November 1995.

ETS requests your assistance in identifying a person in the Permits Branch to assist in this process. Our Consulting Engineer, Dave Jordan of ERM, Inc., will be in contact with you on this point. Should you need any additional information regarding our proposed course of action, please contact me at (219) 262-2060 ext 145.

Sincerely,

William J. Melchior

William G. Melchior
Director of Engineering & Maintenance

cc: D. Jordan
M. Stephenson
J. Whetzell
J. Simon

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live

Frank O'Bannon
Governor

John M. Hamilton
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

August 19, 1997

Via Certified Mail #P 451 346 595

Mr. William Melchior
Environmental Test Systems, Inc.
P.O. Box 4659
Elkhart, Indiana 46514-0659

Re: Inspection Summary

Dear Mr. Melchior:

On July 29, 1997 a representative of the Office of Air Management, Indiana Department of Environmental Management, conducted an inspection to determine compliance with Indiana's air rules. For your information, a summary of the inspection report is provided below:

Company Name:	Environmental Test Systems, Inc.
Company Street Address:	23575 County Road 106
Company City, State:	Elkhart, Indiana

Type of Inspection:
- X USEPA Commitment
- ___ Complaint
- ___ Routine

Results of Inspection:
- X No violations were determined during the inspection
- ___ Further investigation, review of records, or laboratory analysis of samples necessary to determine compliance.

Recommended Action:
- X None
- ___ Violation Letter
- ___ Refer to Office of Enforcement

Comments: Environmental Test Systems, Inc. is operating under the provisions of 326 IAC 2-10 (Permit by Rule), therefore, construction permit number CP 039-3039 is no longer valid. The String 1-6 Line is not subject to 326 IAC 8-2-5 or 326 IAC 8-2-11. The String 1-6 is not subject to 326 IAC 8-1-6 (BACT) because potential emissions are less than 25 tons per year.

Environmental Test Systems, Inc. will submit a State Construction Permit Application or a Title V Permit Application to obtain a Site Specific RACT for compliance of Tunnel 1-9 and Tunnel 3-8 Lines with 326 IAC 8-2-5.

Inspector Information: Name/Telephone: Greg Wingstrom, (317) 233-5674

Signature: Greg Wingstrom

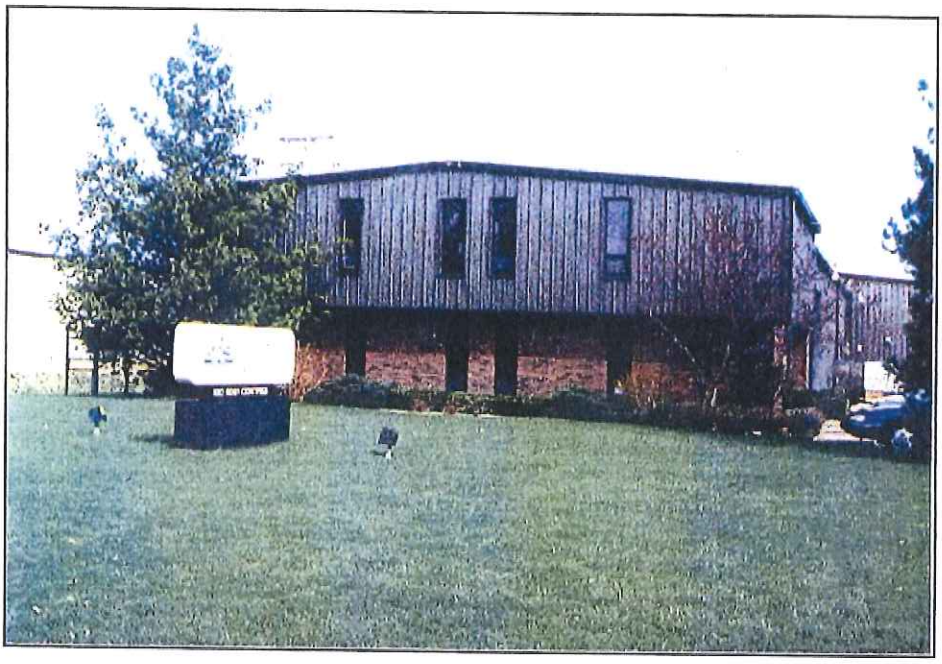


Photo 1 - Environmental Test Systems, Inc (ETS) property

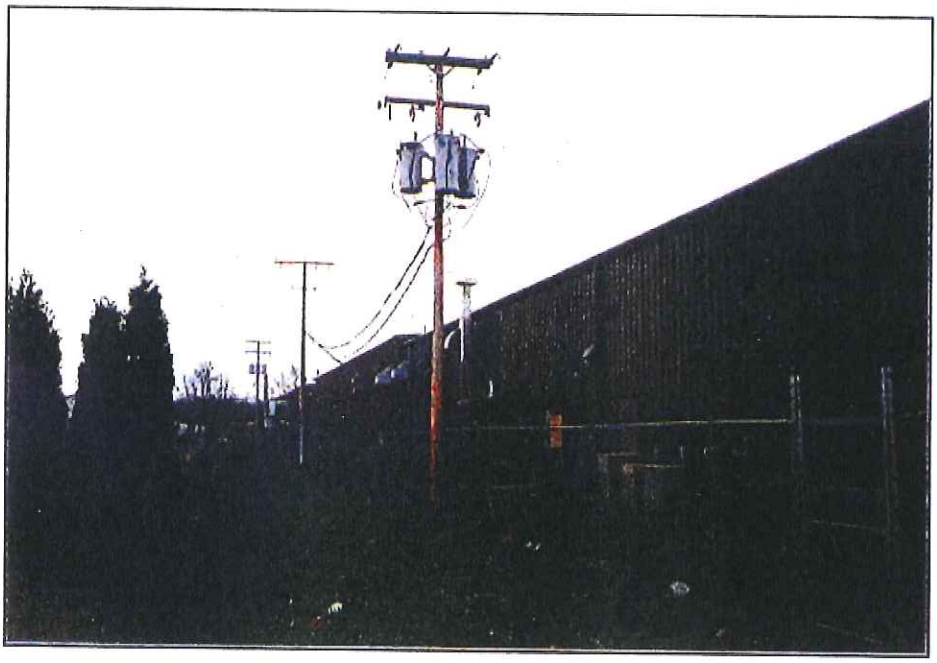


Photo 2 - West side of ETS building

DANAHER CORPORATION
ETS FACILITY - ELKHART, INDIANA

PHASE I ENVIRONMENTAL SITE ASSESSMENT

SELECTED SITE PHOTOGRAPHS
APRIL 14, 1999

BBL BLASLAND, BOUCK & LEE, INC. *engineers & scientists*

APPENDIX **B**

Photo 3 - Storage area, building #3

Photo 4 - Finished product storage, building #2

DANAHER CORPORATION
ETS FACILITY - ELKHART, INDIANA

PHASE I ENVIRONMENTAL SITE ASSESSMENT

SELECTED SITE PHOTOGRAPHS
APRIL 14, 1999

BBL BLASLAND, BOUCK & LEE, INC. *engineers & scientists*

APPENDIX **B**

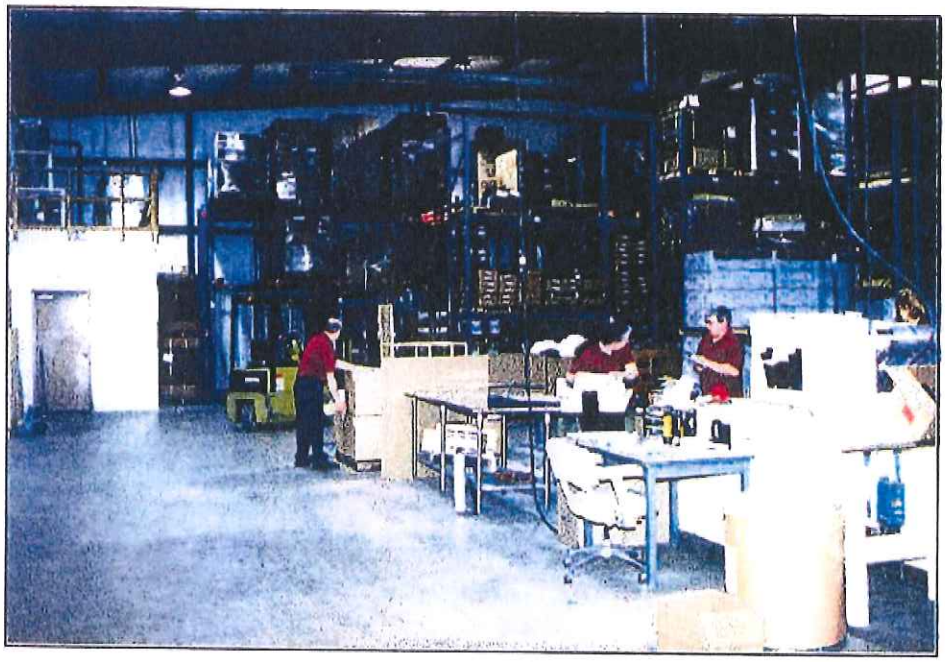


Photo 5 - Labeling and packaging area, building #3

Photo 6 - Hazardous waste storage, building #2

DANAHER CORPORATION
ETS FACILITY - ELKHART, INDIANA

PHASE I ENVIRONMENTAL SITE ASSESSMENT

SELECTED SITE PHOTOGRAPHS
APRIL 14, 1999

BBL BLASLAND, BOUCK & LEE, INC. *engineers & scientists*

APPENDIX **B**

Photo 7 - City of Elkhart sanitary sewer sampling manhole

Photo 8 - Northern portion of ETS property

DANAHER CORPORATION
ETS FACILITY - ELKHART, INDIANA

PHASE I ENVIRONMENTAL SITE ASSESSMENT

SELECTED SITE PHOTOGRAPHS
APRIL 14, 1999

BBL BLASLAND, BOUCK & LEE, INC. *engineers & scientists*

APPENDIX **B**

Photo 9 - Adjoining property to West, Voyager

Photo 10 - Adjoining property to East, Native Hardwoods

DANAHER CORPORATION
ETS FACILITY - ELKHART, INDIANA

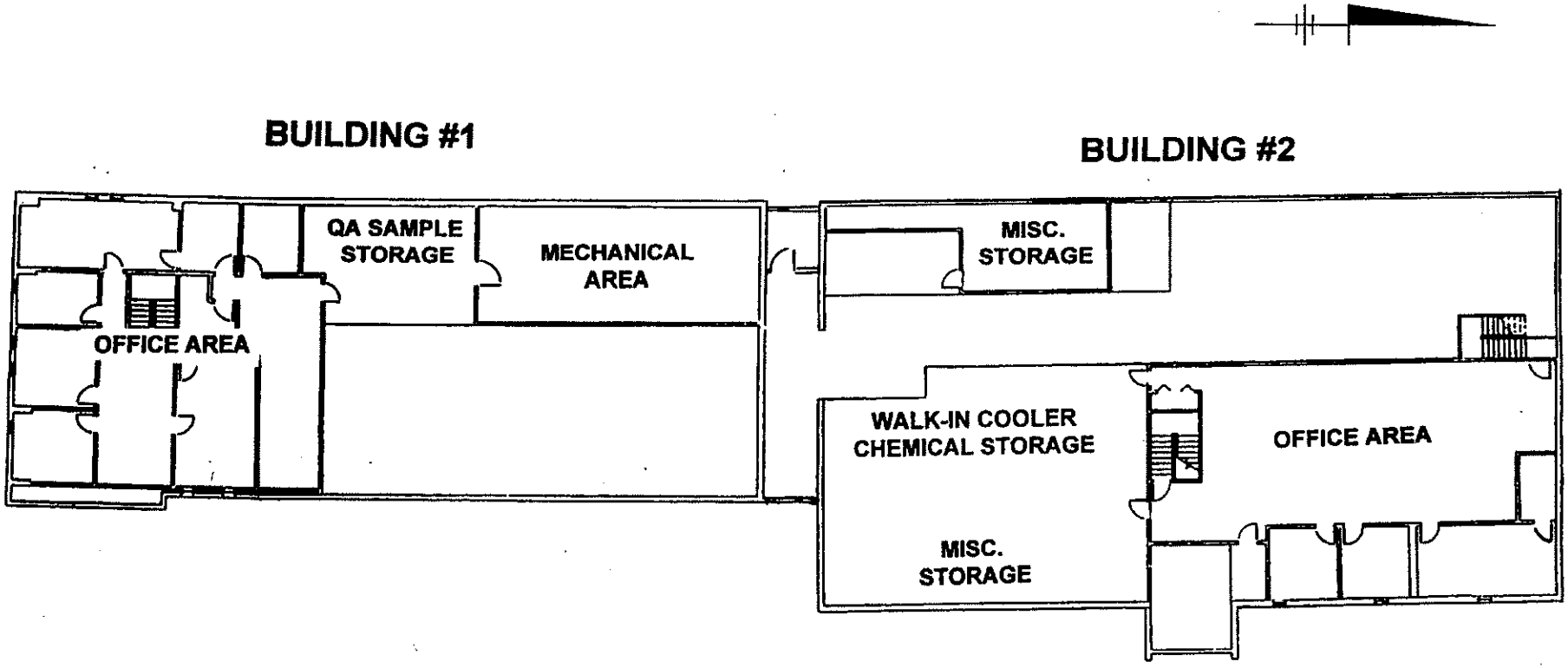
PHASE I ENVIRONMENTAL SITE ASSESSMENT

SELECTED SITE PHOTOGRAPHS
APRIL 14, 1999

BBL BLASLAND, BOUCK & LEE, INC. *engineers & scientists*

APPENDIX **B**

05/99 SYR-D54-DJH
30738010/30738g08.cdr



Approximate Scale: 1" = 30'

NOTES:

1. Based upon a "Not-to-Scale" floor plan provided by ETS; at an estimated scale of 1" = 30:

2. All locations are approximate.

DANAHER CORPORATION
ETS FACILITY - ELKHART, INDIANA

PHASE I ENVIRONMENTAL SITE ASSESSMENT

BUILDINGS #1 AND #2 - FLOOR PLAN SECOND FLOOR

BBL BLASLAND, BOUCK & LEE, INC. *engineers & scientists*

FIGURE 4

04/99 SYR-D54-DJH
30738010/30738g01.cdr

Appendix A
VISTA Information Solutions, Inc. - National Radius Survey

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

SITE ASSESSMENT REPORT
(ALL DATABASES SEARCHED TO 1 MILE)

PROPERTY INFORMATION	CLIENT INFORMATION
Project Name/Ref #: Not Provided Environmental Test Systems, Inc. 23575 County Road 106 Elkhart, IN 46514 Cross Street: 307.38.010 Latitude/Longitude: (41.716626, 85.920348)	

Site Distribution Summary Agency / Database - Type of Records			within 1/8 mile	1/8 to 1/4 mile	1/4 to 1/2 mile	1/2 to 1 mile
A) Databases searched to 1 mile:						
US EPA	NPL	National Priority List	0	0	0	0
US EPA	CORRACTS (TSD)	RCRA Corrective Actions and associated TSD	0	0	0	0
STATE	SPL	State equivalent priority list	0	0	0	0
B) Databases searched to 1 mile:						
STATE	SCL	State equivalent CERCLIS list	0	0	0	1
US EPA	CERCLIS / NFRAP	Sites currently or formerly under review by US EPA	0	0	0	0
US EPA	TSD	RCRA permitted treatment, storage, disposal facilities	0	0	0	0
STATE	LUST	Leaking Underground Storage Tanks	0	0	0	0
STATE	SWLF	Permitted as solid waste landfills, incinerators, or transfer stations	0	0	0	0
C) Databases searched to 1 mile:						
STATE	UST	Registered underground storage tanks	0	2	1	3
D) Databases searched to 1 mile:						
US EPA	ERNS	Emergency Response Notification System of spills	0	0	0	0
US EPA	LG GEN	RCRA registered large generators of hazardous waste	0	0	0	0
US EPA	SM GEN	RCRA registered small generators of hazardous waste	3	1	4	7
STATE	SPILLS	State spills list	0	1	2	1

This report meets the ASTM standard E-1527 for standard federal and state government database research in a Phase I environmental site assessment. A (-) indicates a distance not searched because it exceeds these ASTM search parameters.

NOTES

SITE ASSESSMENT REPORT
(ALL DATABASES SEARCHED TO 1 MILE)

SITE INVENTORY

MAP ID	PROPERTY AND THE ADJACENT AREA (within 1/8 mile)	VISTA ID / DISTANCE / DIRECTION	A			B						C	D			
			NPL	CORRACTS(TSD)	SPL	SCL	CERCLIS/NFRAP	TSD	LUST	SWLF	UST	ERNS	LG GEN	SM GEN	SPILLS
1	ENVIRONMENTAL TEST SYSTEMS INC 23575 CR 106 ELKHART, IN 46514	141201 0.00 MI NA												X	
2	KELLMARK CORP 53465 ADA DR ELKHART, IN 46514	5271245 0.10 MI NW												X	
2	VOYAGER DAKAT INC 53468 ADA DR ELKHART, IN 46514	456032 0.11 MI NW												X	

MAP ID	SITES IN THE SURROUNDING AREA (within 1/8 - 1/4 mile)	VISTA ID / DISTANCE / DIRECTION	A			B						C	D			
			NPL	CORRACTS(TSD)	SPL	SCL	CERCLIS/NFRAP	TSD	LUST	SWLF	UST	ERNS	LG GEN	SM GEN	SPILLS
3	CHUPP SONS CONVERSIONS 53387 ADA DR ELKHART, IN 46514	5380201 0.15 MI NW									X				
4	STILES INC 23551 COOPER DR ELKHART, IN 46514	400473 0.20 MI N												X	
5	ELKHART STEEL SERVICE INC 23321 CR 106 ELKHART, IN 46514	856586 0.22 MI E									X				
6A	CLP TRUCKING 23319 COOPER DRIVE ELKHART, IN 46514	5380522 0.24 MI NE													X

MAP ID	SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile)	VISTA ID DISTANCE DIRECTION	A			B						C	D			
			NPL	CORRACTS(TSD)	SPL	SCL	CERCLIS/NFRAP	TSD	LUST	SWLF	UST	ERNS	LG GEN	SM GEN	SPILLS
6	GEOCEL LIMITED INCORPORATED 53280 MARINA DR ELKHART, IN 46514	169357 0.30 MI NE												X	
7	REICHHOLD CHEMICAL 23740 COOPER DR ELKHART, IN 46514	3703845 0.25 MI NW												X	
7	GENERAL FIBERGLASS 23740 COOPER DR ELKHART, IN 46514	168013 0.25 MI NW													X
8	FABWEL PLASTICS 23892 COOPER DRIVE ELKHART, IN 46514	7356204 0.32 MI NW													X
9	JACKSON R E COMPANY INC 53217 MARINA DR ELKHART, IN 46514	350770 0.35 MI NE												X	
10	CREATION WINDOWS OF IND INC 53061 ADA DR ELKHART, IN 46514	105544 0.40 MI N									X				
11	ELECTROMATION INC 23590 CO RD 6 ELKHART, IN 46514	136786 0.46 MI N												X	

MAP ID	SITES IN THE SURROUNDING AREA (within 1/2 - 1 mile)	VISTA ID DISTANCE DIRECTION	A			B						C	D			
			NPL	CORRACTS(TSD)	SPL	SCL	CERCLIS/NFRAP	TSD	LUST	SWLF	UST	ERNS	LG GEN	SM GEN	SPILLS
12	H B FULLER CO 24087 COUNTY ROAD 6 ELKHART, IN 46514	11639676 0.62 MI NW				X									
12	KOCH PROTECTIVE TREATMENTS INC 24087 CR 6 E ELKHART, IN 46514	5466703 0.63 MI NW												X	
13	KEMBERLY INC 23720 REEDY DR ELKHART, IN 46514	3705999 0.69 MI N												X	X
14	EASCO ALUMINUM CORP 23841 REEDY DR ELKHART, IN 46514	1888043 0.69 MI N									X			X	
14	MHA CORP 23852 REEDY DR ELKHART, IN 46514	270800 0.70 MI N												X	
14	MFI INC 23925 REEDY DR ELKHART, IN 46514	6512484 0.70 MI N												X	

MAP ID	SITES IN THE SURROUNDING AREA (within 1/2 - 1 mile)	VISTA ID DISTANCE DIRECTION	A			B					C	D			
			NPL	CORRACTS(TSD)	SPL	SCL	CERCLIS/NFRAP	TSD	LUST	SWLF	UST	ERNS	LG GEN	SM GEN	SPILLS
14	SEE FAC ID 17711 23900 REEDY DR ELKHART, IN 46514	6561488 0.71 MI N									X				
14	AMERICAN STEEL 23900 REEDY DR ELKHART, IN 46514	6736938 0.71 MI N									X				
15	J R WEBER INC 23540 REEDY DR ELKHART, IN 46514	1888042 0.69 MI N												X	
16	GLAVAL CORP 52791 CR 113 ELKHART, IN 46514	5271283 0.74 MI NE												X	

UNMAPPED SITES	VISTA ID	A			B					C	D			
		NPL	CORRACTS(TSD)	SPL	SCL	CERCLIS/NFRAP	TSD	LUST	SWLF	UST	ERNS	LG GEN	SM GEN	SPILLS
BARD SONS HOLIDAY DR ELKHART, IN 46514	37673					X								
ADNIK RECREATIONAL PRODUCTS INC 53236 CR 13 ELKHART, IN 46514	3459125												X	
FRANGER GAS CO INC 27773 CR 10 ELKHART, IN 46514	527181									X				
MASCO CORP REESE PROD DIV 51671 SR 19 N ELKHART, IN 46514	6512468												X	
SEE FAC ID 10907 DUP FILE 2 N LUSHER ST ELKHART, IN	6737340							X		X				
THE DUALLY DEPOT 55376 CR 3 N ELKHART, IN 46514	4288398									X				
VARIOUS SITES W FRANKLIN INDIANA ELKHART, IN	6560045							X		X				
7-ELEVEN STORE #22000 51903 SR 19 ELKHART, IN 46514	3223676							X		X				
STERLING PRODUCTS UNKNOWN ELKHART, IN	6560473							X		X				
SEE FAC ID 16697 16698 RICE FIELD AND SERVICE ELKHART, IN	6562224									X				
SEE FAC ID 17162 29340 KEXINGTON DR ELKHART, IN	6560230									X				
AMERICAN TRAILER HWY 19 N ELKHART, IN	6557348							X		X				
ASCOT ENTERPRISES INC 53706 CR 9 N ELKHART, IN 46514	4166289											X		
NORTHSHORE DRIVE/MERLE DRIVE ELKHART, IN 46514	11639514				X									
HANDY DANDY S MAIN ST ELKHART, IN	6560578							X		X				
WILTS FOOD CTR 100 E SHOPPING PLACE ELKHART, IN 46514	7657781				X									

UNMAPPED SITES	VISTA ID	A			B					C	D			
		NPL	CORRACTS(TSD)	SPL	SCL	CERCLIS/NFRAP	TSD	LUST	SWLF	UST	ERNS	LG GEN	SM GEN	SPILLS
NIBLOCK MACHINERY 26599 WINDSOR AVE ELKHART, IN 46514	296909									X				
LUSHER AVENUE ELKHART, IN	2806456			X										
HOLIDAY MOBILE VILLAGE RR 6 BOX 864 ELKHART, IN 46514	2830649									X				
ELKHART COMMUNITY SCHOOLS LINCOLN MEMORIAL HS ELKHART, IN	6560328							X		X				
AMOCO OIL CO 30967 RR 2 CR 4W ELKHART, IN 46514	3459223												X	
STURGIS IRON METAL OF INDIANA 58242 SR 19 S PO BOX 4537 ELKHART, IN 46514	6737759									X				
STATEWIDE ALUMINUM INC 23601 CR 6 E ELKHART, IN 46514	5660339												X	
NO NAME CO RD 26 NEAR CO RD 7 ELKHART, IN 46514	298440					X								
SYCAMORE STREET SITE ELKHART, IN	2808698			X										
CREATION WINDOWS 23806 CR 6 ELKHART, IN 46514	7913621												X	
SPEEDWAY #6086 57766 SR 19 ELKHART, IN 46514	6561989							X		X				
RED D MART 51451 SR 19 N ELKHART, IN 46514	6738592							X		X				
RIBLET PRODUCTS CORP 3610 CALIFORNIA RD ELKHART, IN 46514	861319									X				
MECO INDIANA 23900 CR 6 ELKHART, IN 46514	3704203									X				
FRANK C ALVEY 26586 STONY CREEK DR ELKHART, IN 46514	857722									X				
SEVEN ELEVEN FOOD STORE 22000 51903 SR 19 ELKHART, IN 46514	3459485												X	
ELKHART BRASS MFG HANGAR #23 EASTSIDE OF AIRPORT ELKHART, IN 46514	2830441									X				

UNMAPPED SITES	VISTA ID	A			B					C	D			
		NPL	CORRACTS(TSD)	SPL	SCL	CERCLIS/NFRAP	TSD	LUST	SWLF	UST	ERNS	LG GEN	SM GEN	SPILLS
ELKHART CAREER CTR ANNEX 28330 CR 10 ELKHART, IN 46514	6927741												X	
CHEKER UNIT #7074 23221 US 33 E ELKHART, IN 46514	3224390							X		X			X	
BURGER STORE #1 58072 CR 9 ELKHART, IN 46514	3220163									X				
ELKHART SLUDGE FARM COUNTY ROAD 3 ELKHART, IN 46514	3219791					X								
LESTER DOLPH 27908 CR 4 W ELKHART, IN 46514	6559040									X				
SUNDOWNER INTERIORS 1110 CR 6 W ELKHART, IN 46514	5540713									X				
REESE PRODUCTS 51671 SR 19 ELKHART, IN 46514	4169766									X				
ELKHART MARKET WEST LLC 1200 NAPPANNEE ST ELKHART, IN 46514	7657607				X									
SCHRICKER H F 28054 CR 4 W ELKHART, IN 46514	859577									X				
DEL'S MARATHON SERVICE STATION SR 19 CR 6 ELKHART, IN 46514	5540729							X		X				
ELKHART TOLL PLAZA 52269 SR 19 ELKHART, IN 46514	859578									X				
CONRAIL/COUNTY ROAD 1 US 33 WEST/ INDIANA 19 ELKHART, IN	11639748				X									
NORTHCUTT TREE INC 51831 CR 11 N ELKHART, IN 46514	3220062									X				
EARTHMOVERS LDFL 1/2MI E CO RD 7 ELKHART, IN 46514	131649					X								
OX BOW COUNTY PARK 23427 CR 45 ELKHART, IN 46514	1884313							X		X				
LEONARD KANCZUZEWSKI 57475 CR 3 ELKHART, IN	6559073									X				

UNMAPPED SITES	VISTA ID	A			B					C	D			
		NPL	CORRACTS(TSD)	SPL	SCL	CERCLIS/NFRAP	TSD	LUST	SWLF	UST	ERNS	LG GEN	SM GEN	SPILLS
SEE FAC ID 17036 58190 CR 3 ELKHART, IN	6559074									X				
SYCAMORE STREET 108, 116 117 ELKHART, IN 46514	415945					X								
AIRCRAFT MANAGEMENT COMPANY INC I-80 SR 19 ELKHART, IN 46514	1889048									X				
SEE FAC ID 16988 24996 CR 6 ELKHART, IN	6559103									X				
SIMONTON LAKE AUTO 51466 SR 19 N ELKHART, IN 46514	6736813									X				
JORDAN LINCOLN MERCURY 10005 N NAPPANEE ELKHART, IN 46514	221686												X	
CAUFFMAN PRODUCTS INC 26683 WINDSOR AVE ELKHART, IN 46514	73797												X	
THE ASSOC F/DISABLED OF ELKHART 19670 SR 120 PO BOX 398 BRISTOL, IN 46507	6561954									X				
EARTHMOVERS LANDFILL CR 26 1/2 MILE EAST OF CR 7 , IN	3459399								X					
ELKHART COUNTY , IN	5379766								X					
COUNTY ROAD 45 PIT C/D SITE 24399 CR 45 NEAR TOWN OF DUNLAP NA, IN	1884314								X					
FEDERAL PAPR BOARD ELKART, IN	2804797			X										
OXBOW PARK SFS , IN	3453202								X					
ELKHART COUNTRY LF , IN	3452641								X					
EARTHMOVERS , IN	2804738								X					
SCHULT HOMES SFS , IN	3453304								X					
NEW PARIS LF , IN	3453185								X					
OAK RIDGE CEMETARY SFS , IN	3453192								X					

SITE ASSESSMENT REPORT
(ALL DATABASES SEARCHED TO 1 MILE)

DETAILS

PROPERTY AND THE ADJACENT AREA (within 1/8 mile)

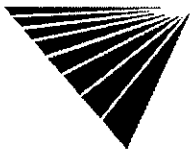
VISTA Address*:	ENVIRONMENTAL TEST SYSTEMS INC 23575 CR 106 ELKHART, IN 46514	VISTA ID#:	141201	Map ID 1
		Distance/Direction:	0.00 MI / NA	
		Plotted as:	Point	
RCRA-SmGen - RCRA-Small Generator / SRC# 5596		EPA ID:	IND152094785	
Agency Address:	*ENVIRONMENTAL TEST SYSTEMS INC 23575 CO RD 106 ELKHART, IN 46514*			
Generator Class:	*Generates 100 kg./month but less than 1000 kg./month of non-acutely hazardous waste*			

VISTA Address*:	KELLMARK CORP 53465 ADA DR ELKHART, IN 46514	VISTA ID#:	5271245	Map ID 2
		Distance/Direction:	0.10 MI / NW	
		Plotted as:	Point	
RCRA-SmGen - RCRA-Small Generator / SRC# 5596		EPA ID:	IN0000632240	
Agency Address:	*SAME AS ABOVE*			
Generator Class:	*Generates 100 kg./month but less than 1000 kg./month of non-acutely hazardous waste*			

VISTA Address*:	VOYAGER DAKAT INC 53468 ADA DR ELKHART, IN 46514	VISTA ID#:	456032	Map ID 2
		Distance/Direction:	0.11 MI / NW	
		Plotted as:	Point	
RCRA-SmGen - RCRA-Small Generator / SRC# 5596		EPA ID:	IND982615403	
Agency Address:	*SAME AS ABOVE*			
Generator Class:	*Generates 100 kg./month but less than 1000 kg./month of non-acutely hazardous waste*			

SITES IN THE SURROUNDING AREA (within 1/8 - 1/4 mile)

VISTA Address*:	CHUPP SONS CONVERSIONS 53387 ADA DR ELKHART, IN 46514	VISTA ID#:	5380201	Map ID 3
		Distance/Direction:	0.15 MI / NW	
		Plotted as:	Point	
STATE UST - State Underground Storage Tank / SRC# 5307		Agency ID:	003318	
Agency Address:	*SAME AS ABOVE*			
Underground Tanks:	*1*			
Aboveground Tanks:	*NOT REPORTED*			
Tanks Removed:	*NOT REPORTED*			



*** VISTA address includes enhanced city and ZIP.**
For more information call VISTA Information Solutions, Inc. at **1 - 800 - 767 - 0403.**
Report ID: **30738010D** Date of Report: **April 19, 1999**
Version 2.6.1

SITES IN THE SURROUNDING AREA (within 1/8 - 1/4 mile) CONT.

Tank ID:	*001U*	**Tank Status:**	*TEMP OUT OF SERVICE*
Tank Contents:	*GASOLINE (UNSPECIFIED)*	**Leak Monitoring:**	*NO MONITOR*
Tank Age:	*NOT REPORTED*	**Tank Piping:**	*UNKNOWN*
Tank Size (Units):	*500 (GALLONS)*	**Tank Material:**	*NOT AVAILABLE*

VISTA Address*:			
STILES INC **23551 COOPER DR** **ELKHART, IN 46514**	VISTA ID#:	400473	Map ID **4**
	Distance/Direction:	0.20 MI / N	
	Plotted as:	Point	
RCRA-SmGen - RCRA-Small Generator / SRC# 5596	EPA ID:	IND088732326	

Agency Address:	*SAME AS ABOVE*
Generator Class:	*Generates 100 kg./month but less than 1000 kg./month of non-acutely hazardous waste*

VISTA Address*:			
ELKHART STEEL SERVICE INC **23321 CR 106** **ELKHART, IN 46514**	VISTA ID#:	856586	Map ID **5**
	Distance/Direction:	0.22 MI / E	
	Plotted as:	Point	
STATE UST - State Underground Storage Tank / SRC# 5307	Agency ID:	001671	

Agency Address:	*SAME AS ABOVE*
Underground Tanks:	*2*
Aboveground Tanks:	*NOT REPORTED*
Tanks Removed:	*NOT REPORTED*

Tank ID:	*001U*	**Tank Status:**	*OUT OF SERVICE*
Tank Contents:	*GASOLINE (UNSPECIFIED)*	**Leak Monitoring:**	*NO MONITOR*
Tank Age:	*NOT REPORTED*	**Tank Piping:**	*GALVANIZED PIPE*
Tank Size (Units):	*500 (GALLONS)*	**Tank Material:**	*STEEL*
Tank ID:	*002U*	**Tank Status:**	*OUT OF SERVICE*
Tank Contents:	*GASOLINE (UNSPECIFIED)*	**Leak Monitoring:**	*NO MONITOR*
Tank Age:	*NOT REPORTED*	**Tank Piping:**	*GALVANIZED PIPE*
Tank Size (Units):	*500 (GALLONS)*	**Tank Material:**	*STEEL*

VISTA Address*:			
CLP TRUCKING **23319 COOPER DRIVE** **ELKHART, IN 46514**	VISTA ID#:	5380522	Map ID **6A**
	Distance/Direction:	0.24 MI / NE	
	Plotted as:	Point	
State Spills / SRC# 5310	EPA/Agency ID:	N/A	

Agency Address:	*SAME AS ABOVE*		
Spill ID#:	*9403003*		
Spill Date:	*02/15/94*		
Lead Agency:	*ERS STAFF*		
Caller Name:	*OTHER*		
Spiller Company:	*CLP TRUCKING*		
Substance:	*DIESEL FUEL*		
Quantity Spilled:	*5000*	**Spilled Units:**	*NOT REPORTED*
Spill Cause:	*TRANSP ACCIDENT*		
Spill Source:	*TRANS-TRUCK*		
Water Body Affected:	*NONE*		
Remedial Status:	*PARTIAL/CLEAN UP*	**Damages:**	*NOT REPORTED*
Comments:	*RESP PARTY: 510 COUNTY GLUB;BENNING;IL;60106*		

SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile)

VISTA Address*:	GEOCEL LIMITED INCORPORATED 53280 MARINA DR ELKHART, IN 46514	VISTA ID#:	169357	Map ID 6
		Distance/Direction:	0.30 MI / NE	
		Plotted as:	Point	
RCRA-SmGen - RCRA-Small Generator / SRC# 5596		EPA ID:	IND069763639	

Agency Address:	*GEOCEL LIMITED INC 53280 MARINA DR ELKHART, IN 46514*
Generator Class:	*Generates 100 kg./month but less than 1000 kg./month of non-acutely hazardous waste*

VISTA Address*:	REICHHOLD CHEMICAL 23740 COOPER DR ELKHART, IN 46514	VISTA ID#:	3703845	Map ID 7
		Distance/Direction:	0.25 MI / NW	
		Plotted as:	Point	
RCRA-SmGen - RCRA-Small Generator / SRC# 5596		EPA ID:	IND984866871	

Agency Address:	*ASHLAND CHEMICAL CO 23740 COOPER DR ELKHART, IN 46514*
Generator Class:	*Generates 100 kg./month but less than 1000 kg./month of non-acutely hazardous waste*

VISTA Address*:	GENERAL FIBERGLASS 23740 COOPER DR ELKHART, IN 46514	VISTA ID#:	168013	Map ID 7
		Distance/Direction:	0.25 MI / NW	
		Plotted as:	Point	
State Spills / SRC# 5310		EPA/Agency ID:	N/A	

Agency Address:	*SAME AS ABOVE*		
Spill ID#:	*9109011*		
Spill Date:	*09/04/91*		
Lead Agency:	*ERS STAFF*		
Caller Name:	*CNTY HEALTH*		
Spiller Company:	*GENERAL FIBERGLASS*		
Substance:	*FIBERGLASS RESIN*		
Quantity Spilled:	*11000*	Spilled Units:	*GALLONS*
		Quantity Recovered:	*10000*
Recovered Units:	*GALLONS*		
Spill Cause:	*EQUIP FAILURE*		
Spill Source:	*INDUSTRIAL*		
Water Body Affected:	*NONE*		
Remedial Status:	*CLEANED UP*	Damages:	*NOT REPORTED*
Comments:	*RESP PARTY: 23740 COOPER;ELKHART;IN;46514*		

SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile) CONT.

VISTA Address*:	FABWEL PLASTICS 23892 COOPER DRIVE ELKHART, IN 46514	VISTA ID#:	7356204	Map ID 8
		Distance/Direction:	0.32 MI / NW	
		Plotted as:	Point	
State Spills / SRC# 5310		EPA/Agency ID:	N/A	

Agency Address:	FABWEL PLASTICS 23892 COOPER DRIVE ELKHART, IN 46515
Spill ID#:	9803107
Spill Date:	03/14/98
Lead Agency:	ERS-FIELD RESP
Caller Name:	DNR/CONSERV OFC
Caller Phone:	219-262-2521
Contact Name:	TOM WERTS
Contact Phone:	219-262-2521
Spiller Company:	FABWEL PLASTICS
Substance:	CHEMICAL FIRE
Spill Cause:	MISC
Spill Source:	INDUSTRIAL
Water Body Affected:	RETENTION PONDS/PRIV
Remedial Status: PARTIAL/CLEAN UP	Damages: NOT REPORTED
Comments:	RESP PARTY: 23892 COOPER DRIVE;ELKHART;IN;46515

VISTA Address*:	JACKSON R E COMPANY INC 53217 MARINA DR ELKHART, IN 46514	VISTA ID#:	350770	Map ID 9
		Distance/Direction:	0.35 MI / NE	
		Plotted as:	Point	
RCRA-SmGen - RCRA-Small Generator / SRC# 5596		EPA ID:	IND065854887	

Agency Address:	RE JACKSON CO INC 53217 MARINA DR ELKHART, IN 46514
Generator Class:	Generates 100 kg./month but less than-1000 kg./month of non-acutely hazardous waste

VISTA Address*:	CREATION WINDOWS OF IND INC 53061 ADA DR ELKHART, IN 46514	VISTA ID#:	105544	Map ID 10
		Distance/Direction:	0.40 MI / N	
		Plotted as:	Point	
STATE UST - State Underground Storage Tank / SRC# 5307		Agency ID:	003280	

Agency Address:	CREATION WINDOWS OF INDIANA INC 53061 ADA DR ELKHART, IN 46514
Underground Tanks:	2
Aboveground Tanks:	NOT REPORTED
Tanks Removed:	NOT REPORTED

Tank ID:	001U	Tank Status:	OUT OF SERVICE
Tank Contents:	GASOLINE (UNSPECIFIED)	Leak Monitoring:	NO MONITOR
Tank Age:	NOT REPORTED	Tank Piping:	UNKNOWN
Tank Size (Units):	1000 (GALLONS)	Tank Material:	STEEL

SITES IN THE SURROUNDING AREA (within 1/4 - 1/2 mile) CONT.

Tank ID:	*002U*	**Tank Status:**	*OUT OF SERVICE*
Tank Contents:	*DIESEL*	**Leak Monitoring:**	*NO MONITOR*
Tank Age:	*NOT REPORTED*	**Tank Piping:**	*UNKNOWN*
Tank Size (Units):	*1000 (GALLONS)*	**Tank Material:**	*STEEL*

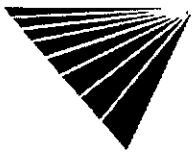
VISTA Address*:				Map ID
ELECTROMATION INC **23590 CO RD 6** **ELKHART, IN 46514**	VISTA ID#:	136786	**11**
	Distance/Direction:	0.46 MI / N	
	Plotted as:	Point	
RCRA-SmGen - RCRA-Small Generator / SRC# 5596	EPA ID:	IND082868217	
Agency Address:	*SAME AS ABOVE*		
Generator Class:	*Generates less than 100 kg./month of non-acutely hazardous waste.*		

SITES IN THE SURROUNDING AREA (within 1/2 - 1 mile)

VISTA Address*:				Map ID
H B FULLER CO **24087 COUNTY ROAD 6** **ELKHART, IN 46514**	VISTA ID#:	11639676	**12**
	Distance/Direction:	0.62 MI / NW	
	Plotted as:	Point	
SCL - State Equivalent CERCLIS List / SRC# 5614	Agency ID:	6950404	
Agency Address:	*SAME AS ABOVE*		
Status:	*UNKNOWN*		
Facility Type:	*NOT AVAILABLE*		
Lead Agency:	*NOT AVAILABLE*		
State Status:	*NOT AVAILABLE*		
Pollutant 1:	*UNKNOWN*		
Pollutant 2:	*UNKNOWN*		
Pollutant 3:	*UNKNOWN*		

VISTA Address*:				Map ID
KOCH PROTECTIVE TREATMENTS INC **24087 CR 6 E** **ELKHART, IN 46514**	VISTA ID#:	5466703	**12**
	Distance/Direction:	0.63 MI / NW	
	Plotted as:	Point	
RCRA-SmGen - RCRA-Small Generator / SRC# 5596	EPA ID:	IND074297110	
Agency Address:	*HB FULLER CO* *24087 CTY RD 6 E* *ELKHART, IN 46514*		
Generator Class:	*Generates 100 kg./month but less than 1000 kg./month of non-acutely hazardous waste*		

VISTA Address*:				Map ID
KEMBERLY INC **23720 REEDY DR** **ELKHART, IN 46514**	VISTA ID#:	3705999	**13**
	Distance/Direction:	0.69 MI / N	
	Plotted as:	Point	
State Spills / SRC# 5310	EPA/Agency ID:	N/A	
Agency Address:	*KIMBERLY INC.* *23720 REEDY DRIVE* *ELKART, IN 46514*		
Spill ID#:	*9607128*		
Spill Date:	*07/21/96*		
Lead Agency:	*ERS STAFF*		



*** VISTA address includes enhanced city and ZIP.**
For more information call VISTA Information Solutions, Inc. at **1 - 800 - 767 - 0403.**
Report ID: **30738010D**
Version 2.6.1
Date of Report: **April 19, 1999**

Caller Name:	*RESP PARTY*		
Caller Phone:	*219-264-4144*		
Contact Name:	*PAGE ROBERTO*		
Contact Phone:	*219-264-4144*		
Spiller Company:	*KIMBERLY INC.*		
Substance:	*DIESEL FUEL*		
Quantity Spilled:	*2500*	**Spilled Units:**	*GALLONS*
		Quantity Recovered:	*2500*
Recovered Units:	*GALLONS*		
Spill Cause:	*TRANSP ACCIDENT*		
Spill Source:	*COMMERCIAL*		
Water Body Affected:	*ENTRY WAY DITCH*		
Remedial Status:	*CLEANED UP*	**Damages:**	*NOT REPORTED*
Comments:	*RESP PARTY: 23720 REEDY ROAD;ELKART;IN;46514*		

RCRA-SmGen - RCRA-Small Generator / SRC# 5596	EPA ID:	IND985049956
Agency Address:	*SAME AS ABOVE*	
Generator Class:	*Generates 100 kg./month but less than 1000 kg./month of non-acutely hazardous waste*	

VISTA Address*:	**EASCO ALUMINUM CORP** **23841 REEDY DR** **ELKHART, IN 46514**	VISTA ID#:	1888043
		Distance/Direction:	0.69 MI / N
		Plotted as:	Point
STATE UST - State Underground Storage Tank / SRC# 5307		Agency ID:	011084

Map ID **14**

Agency Address:	*EASCO ALUMINUM* *23841 REEDY DR* *ELKHART, IN 46515*
Underground Tanks:	*4*
Aboveground Tanks:	*NOT REPORTED*
Tanks Removed:	*NOT REPORTED*

Tank ID:	*001U*	**Tank Status:**	*OUT OF SERVICE*
Tank Contents:	*USED OIL*	**Leak Monitoring:**	*NO MONITOR*
Tank Age:	*NOT REPORTED*	**Tank Piping:**	*FIBERGLASS REINFORCED PLASTIC*
Tank Size (Units):	*700 (GALLONS)*	**Tank Material:**	*CONCRETE*
Tank ID:	*002U*	**Tank Status:**	*OUT OF SERVICE*
Tank Contents:	*USED OIL*	**Leak Monitoring:**	*NO MONITOR*
Tank Age:	*NOT REPORTED*	**Tank Piping:**	*FIBERGLASS REINFORCED PLASTIC*
Tank Size (Units):	*700 (GALLONS)*	**Tank Material:**	*CONCRETE*
Tank ID:	*003U*	**Tank Status:**	*OUT OF SERVICE*
Tank Contents:	*USED OIL*	**Leak Monitoring:**	*NO MONITOR*
Tank Age:	*NOT REPORTED*	**Tank Piping:**	*FIBERGLASS REINFORCED PLASTIC*
Tank Size (Units):	*700 (GALLONS)*	**Tank Material:**	*CONCRETE*
Tank ID:	*004U*	**Tank Status:**	*OUT OF SERVICE*
Tank Contents:	*UNKNOWN*	**Leak Monitoring:**	*NO MONITOR*
Tank Age:	*NOT REPORTED*	**Tank Piping:**	*GALVANIZED PIPE*
Tank Size (Units):	*10000 (GALLONS)*	**Tank Material:**	*STEEL*

RCRA-SmGen - RCRA-Small Generator / SRC# 5596	EPA ID:	IND086775160
Agency Address:	*EASCO ALUMINUM ELKHART DIV 23841 REEDY DR ELKHART, IN 46514*	
Generator Class:	*Generates 100 kg./month but less than 1000 kg./month of non-acutely hazardous waste*	

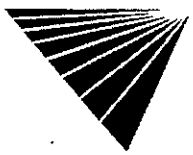
VISTA Address*:	**MHA CORP 23852 REEDY DR ELKHART, IN 46514**	VISTA ID#:	270800	Map ID **14**
		Distance/Direction:	0.70 MI / N	
		Plotted as:	Point	
RCRA-SmGen - RCRA-Small Generator / SRC# 5596		EPA ID:	IND040282121	
Agency Address:	*SAME AS ABOVE*			
Generator Class:	*Generates 100 kg./month but less than 1000 kg./month of non-acutely hazardous waste*			

VISTA Address*:	**MFI INC 23925 REEDY DR ELKHART, IN 46514**	VISTA ID#:	6512484	Map ID **14**
		Distance/Direction:	0.70 MI / N	
		Plotted as:	Point	
RCRA-SmGen - RCRA-Small Generator / SRC# 5596		EPA ID:	IND980903033	
Agency Address:	*PRODESIGN 23925 REEDY DR ELKHART, IN 46516*			
Generator Class:	*Generates less than 100 kg./month of non-acutely hazardous waste.*			

VISTA Address*:	**SEE FAC ID 17711 23900 REEDY DR ELKHART, IN 46514**	VISTA ID#:	6561488	Map ID **14**
		Distance/Direction:	0.71 MI / N	
		Plotted as:	Point	
STATE UST - State Underground Storage Tank / SRC# 5307		Agency ID:	021292	
Agency Address:	*SEE FAC ID 17711 23900 REEDY DR ELKHART, IN*			
Underground Tanks:	*NOT REPORTED*			
Aboveground Tanks:	*NOT REPORTED*			
Tanks Removed:	*NOT REPORTED*			

VISTA Address*:	**AMERICAN STEEL 23900 REEDY DR ELKHART, IN 46514**	VISTA ID#:	6736938	Map ID **14**
		Distance/Direction:	0.71 MI / N	
		Plotted as:	Point	
STATE UST - State Underground Storage Tank / SRC# 5307		Agency ID:	017711	
Agency Address:	*SAME AS ABOVE*			
Underground Tanks:	*1*			
Aboveground Tanks:	*NOT REPORTED*			
Tanks Removed:	*NOT REPORTED*			

Tank ID:	*001U*	**Tank Status:**	*OUT OF SERVICE*
Tank Contents:	*GASOLINE (UNSPECIFIED)*	**Leak Monitoring:**	*NO MONITOR*
Tank Age:	*NOT REPORTED*	**Tank Piping:**	*UNKNOWN*
Tank Size (Units):	*500 (GALLONS)*	**Tank Material:**	*STEEL*



VISTA Address*:	J R WEBER INC 23540 REEDY DR ELKHART, IN 46514	VISTA ID#:	1888042	Map ID 15
		Distance/Direction:	0.69 MI / N	
		Plotted as:	Point	
RCRA-SmGen - RCRA-Small Generator / SRC# 5596		EPA ID:	IND984873422	
Agency Address:	*SAME AS ABOVE*			
Generator Class:	*Generates 100 kg./month but less than 1000 kg./month of non-acutely hazardous waste*			

VISTA Address*:	GLAVAL CORP 52791 CR 113 ELKHART, IN 46514	VISTA ID#:	5271283	Map ID 16
		Distance/Direction:	0.74 MI / NE	
		Plotted as:	Point	
RCRA-SmGen - RCRA-Small Generator / SRC# 5596		EPA ID:	IND984875997	
Agency Address:	*BENNINGTON CORP* *52791 CO RD 113* *ELKHART, IN 46514*			
Generator Class:	*Generates 100 kg./month but less than 1000 kg./month of non-acutely hazardous waste*			

UNMAPPED SITES

VISTA Address*:	BARD SONS HOLIDAY DR ELKHART, IN 46514	VISTA ID#:	37673
NFRAP / SRC# 5595		EPA ID:	IND163778293

Agency Address:	*BARD SONS HOLIDAY DRIVE ELKHART, IN 46514*		
Alias Name:	*BARD SONS*		
Alias Street:	*NOT REPORTED*		
Alias City:	*ELKHART*	**Alias Latitude:**	*0*
Alias Zip:	*NOT REPORTED*	**Alias Longitude:**	*0*
Alias State:	*IN*		
Alias Description:	*NOT REPORTED*		
EPA Region:	*5*		
Congressional District:	*0*		
Federal Facility:	*Agency Code ( )*		
Facility Ownership:	*UNKNOWN*		
Site Incident Category:	*unknown*		
Federal Facility Docket:	*SITE IS NOT INCLUDED ON THE DOCKET*		
NPL Status:	*NOT ON NPL*		
Incident Type:	*Unknown*		
Proposed NPL Update #:	*0*		
Final NPL Update #:	*0*		
Financial Management System ID:	*NOT REPORTED*		
Latitude:	*0*		
Longitude:	*0*		
Lat/Long Source:	*Agency Code ( )*		
Lat/Long Accuracy:	*Unknown*		
Dioxin Tier:	*Unknown*		
USGS Hydro Unit:	*4050001*		
RCRA Indicator:	*Unknown*		
Unit Id:	*0*		
Unit Name:	*ENTIRE SITE*		
Type:	*DISCOVERY*	**Lead Agency:**	*STATE, FUND FINANCED*
Qualifier:	*UNKNOWN*	**Category:**	*Unknown*
Name:	*NOT REPORTED*	**Actual Start Date:**	*NOT REPORTED*
Plan Status:	*Unknown*	**Actual Completion Date:**	*FEBRUARY 1, 1989*
Type:	*PRELIMINARY ASSESSMENT*	**Lead Agency:**	*STATE, FUND FINANCED*
Qualifier:	*NO FURTHER REMEDIAL ACTION PLANNED*	**Category:**	*Unknown*
Name:	*NOT REPORTED*	**Actual Start Date:**	*NOT REPORTED*
Plan Status:	*Unknown*	**Actual Completion Date:**	*UNKNOWN*

VISTA Address*:	SEE FAC ID 10907 DUP FILE 2 N LUSHER ST ELKHART, IN	VISTA ID#:	6737340
STATE LUST - State Leaking Underground Storage Tank / SRC# 5308		EPA/Agency ID:	N/A

Agency Address:	SAME AS ABOVE
Facility ID:	020080
Leak ID#:	8807027
Substance:	PETROLUEM (LUST)
Remediation Status:	ACTIVE
Priority:	LOW
Media Affected:	SOIL
Responsible Party:	CONRAIL
Description / Comment:	OWNER ID: 012000OWNER : DISPUTED OWNERSHIP;OWNER UNCERTAIN;INDIANAPOLIS;IN;46207;UNKNOWN

VISTA Address*:	VARIOUS SITES W FRANKLIN INDIANA ELKHART, IN	VISTA ID#:	6560045
STATE LUST - State Leaking Underground Storage Tank / SRC# 5308		EPA/Agency ID:	N/A

Agency Address:	SAME AS ABOVE
Facility ID:	020271
Leak ID#:	9201555
Substance:	PETROLUEM (LUST)
Remediation Status:	ACTIVE
Priority:	MEDIUM
Media Affected:	SOIL
Responsible Party:	VARIOUS SITES
Description / Comment:	OWNER ID: 012000OWNER : DISPUTED OWNERSHIP;OWNER UNCERTAIN;INDIANAPOLIS;IN;46207;UNKNOWN

VISTA Address*:	7-ELEVEN STORE #22000 51903 SR 19 ELKHART, IN 46514	VISTA ID#:	3223676
STATE LUST - State Leaking Underground Storage Tank / SRC# 5308		EPA/Agency ID:	N/A

Agency Address:	SAME AS ABOVE
Facility ID:	015144
Leak ID#:	9712506
Leak Date:	01/02/98
Substance:	GASOLINE
Remediation Status:	ACTIVE
Priority:	LOW
Media Affected:	SOIL
Lead Agency:	GARRY W BLAIR

Contact:	*GARRY W BLAIR*
Contact Phone:	*757-490-1711*
Responsible Party:	*SOUTHLAND CORPORATION*
Description / Comment:	*OWNER ID: 000121OWNER : THE SOUTHLAND CORP;PO BOX 711;DALLAS;TX;75221-0711;214-828-0711*

VISTA Address*:	**STERLING PRODUCTS** **UNKNOWN** **ELKHART, IN**	VISTA ID#:	6560473
STATE LUST - State Leaking Underground Storage Tank / SRC# 5308		EPA/Agency ID:	N/A

Agency Address:	*SAME AS ABOVE*
Facility ID:	*020085*
Leak ID#:	*8811055*
Substance:	*HAZ (LUST)*
Remediation Status:	*ACTIVE*
Priority:	*LOW*
Media Affected:	*SOIL*
Responsible Party:	*STERLING PRODUCTS*
Description / Comment:	*OWNER ID: 012000OWNER : DISPUTED OWNERSHIP;OWNER UNCERTAIN;INDIANAPOLIS;IN;46207;UNKNOWN*

VISTA Address*:	AMERICAN TRAILER HWY 19 N ELKHART, IN	VISTA ID#:	6557348
STATE LUST - State Leaking Underground Storage Tank / SRC# 5308		EPA/Agency ID:	N/A

Agency Address:	*SAME AS ABOVE*
Facility ID:	*020269*
Leak ID#:	*9201551*
Substance:	*PETROLUEM (LUST)*
Remediation Status:	*ACTIVE*
Priority:	*MEDIUM*
Media Affected:	*SOIL*
Responsible Party:	*AMERICAN TRAILER*
Description / Comment:	*OWNER ID: 013278OWNER : AMERICAN TRAILER SUPPLY;HWY 19 N OF TOLL RD;ELKHART;IN;11111;UNKNOWN*

VISTA Address*:	NORTHSHORE DRIVE/MERLE DRIVE ELKHART, IN 46514	VISTA ID#:	11639514
SCL - State Equivalent CERCLIS List / SRC# 5613		Agency ID:	7300007

Agency Address:	*SAME AS ABOVE*
Status:	*UNKNOWN*
Facility Type:	*NOT AVAILABLE*
Lead Agency:	*NOT AVAILABLE*
State Status:	*NOT AVAILABLE*
Pollutant 1:	*UNKNOWN*
Pollutant 2:	*UNKNOWN*
Pollutant 3:	*UNKNOWN*

VISTA Address*:	HANDY DANDY S MAIN ST ELKHART, IN	VISTA ID#:	6560578
STATE LUST - State Leaking Underground Storage Tank / SRC# 5308		EPA/Agency ID:	N/A

Agency Address:	*SAME AS ABOVE*
Facility ID:	*020044*
Leak ID#:	*8611017*
Substance:	*PETROLUEM (LUST)*
Remediation Status:	*ACTIVE*
Priority:	*MEDIUM*
Media Affected:	*SOIL*
Responsible Party:	*HANDY DANDY*
Description / Comment:	*OWNER ID: 012000OWNER : DISPUTED OWNERSHIP;OWNER UNCERTAIN;INDIANAPOLIS;IN;46207;UNKNOWN*

VISTA Address*:	WILTS FOOD CTR 100 E SHOPPING PLACE ELKHART, IN 46514	VISTA ID#:	7657781
SCL - State Equivalent CERCLIS List / SRC# 5614		Agency ID:	6950804

Agency Address:	*(FORMER) WILT'S FOOD CENTER (SUPER V 100 EASY SHOPPING PL ELKHART, IN 46516*
Status:	*UNKNOWN*
Facility Type:	*NOT AVAILABLE*
Lead Agency:	*NOT AVAILABLE*
State Status:	*NOT AVAILABLE*
Pollutant 1:	*UNKNOWN*
Pollutant 2:	*UNKNOWN*
Pollutant 3:	*UNKNOWN*

VISTA Address*:	LUSHER AVENUE ELKHART, IN	VISTA ID#:	2806456
SPL - State Equivalent Priority List / SRC# 5532		EPA/Agency ID:	N/A

Agency Address:	SAME AS ABOVE
Status:	UNKNOWN
Facility Type:	NOT AVAILABLE
Lead Agency:	NOT AVAILABLE
State Status:	NOT AVAILABLE
Pollutant 1:	UNKNOWN
Pollutant 2:	UNKNOWN
Pollutant 3:	UNKNOWN

VISTA Address*:	ELKHART COMMUNITY SCHOOLS LINCOLN MEMORIAL HS ELKHART, IN	VISTA ID#:	6560328
STATE LUST - State Leaking Underground Storage Tank / SRC# 5308		EPA/Agency ID:	N/A

Agency Address:	SAME AS ABOVE
Facility ID:	020135
Leak ID#:	8912558
Substance:	PETROLUEM (LUST)
Remediation Status:	ACTIVE
Priority:	MEDIUM
Media Affected:	SOIL,GROUND
Responsible Party:	ELKHART COMMUNITY SCHOOLS
Description / Comment:	OWNER ID: 012000OWNER : DISPUTED OWNERSHIP;OWNER UNCERTAIN;INDIANAPOLIS;IN;46207;UNKNOWN

VISTA Address*:	NO NAME CO RD 26 NEAR CO RD 7 ELKHART, IN 46514	VISTA ID#:	298440
NFRAP / SRC# 5595		EPA ID:	IND980607550

Agency Address:	SAME AS ABOVE
EPA Region:	5
Congressional District:	0
Federal Facility:	Agency Code ( )
Facility Ownership:	OTHER
Site Incident Category:	unknown
Federal Facility Docket:	SITE IS NOT INCLUDED ON THE DOCKET
NPL Status:	NOT ON NPL
Incident Type:	Unknown
Proposed NPL Update #:	0
Final NPL Update #:	0
Financial Management System ID:	NOT REPORTED
Latitude:	0
Longitude:	0
Lat/Long Source:	Agency Code ( )
Lat/Long Accuracy:	Unknown
Dioxin Tier:	Unknown
USGS Hydro Unit:	4050001
RCRA Indicator:	Unknown
Unit Id:	0
Unit Name:	ENTIRE SITE

Type:	DISCOVERY	Lead Agency:	EPA FUND-FINANCED
Qualifier:	UNKNOWN	Category:	Unknown
Name:	NOT REPORTED	Actual Start Date:	NOT REPORTED
Plan Status:	Unknown	Actual Completion Date:	UNKNOWN

Type:	PRELIMINARY ASSESSMENT	Lead Agency:	STATE, FUND FINANCED
Qualifier:	NO FURTHER REMEDIAL ACTION PLANNED	Category:	Unknown
Name:	NOT REPORTED	Actual Start Date:	NOT REPORTED
Plan Status:	Unknown	Actual Completion Date:	AUGUST 1, 1986

VISTA Address*:	SYCAMORE STREET SITE ELKHART, IN	VISTA ID#:	2808698
SPL - State Equivalent Priority List / SRC# 5532		EPA/Agency ID:	N/A

Agency Address:	SAME AS ABOVE
Status:	UNKNOWN
Facility Type:	NOT AVAILABLE
Lead Agency:	NOT AVAILABLE
State Status:	NOT AVAILABLE
Pollutant 1:	UNKNOWN
Pollutant 2:	UNKNOWN
Pollutant 3:	UNKNOWN

VISTA Address*:	SPEEDWAY #6086 57766 SR 19 ELKHART, IN 46514	VISTA ID#:	6561989
STATE LUST - State Leaking Underground Storage Tank / SRC# 5308		EPA/Agency ID:	N/A

Agency Address:	SAME AS ABOVE
Facility ID:	006750
Leak ID#:	9312518
Leak Date:	08/13/96
Substance:	PETROLUEM (LUST)
Remediation Status:	ACTIVE
Priority:	HIGH
Media Affected:	SOIL,GROUND
Lead Agency:	A.E.PETERSON
Contact:	A.E.PETERSON
Contact Phone:	317-872-3146
Responsible Party:	UNITED UNIT # 6086
Description / Comment:	OWNER ID: 000107OWNER : SPEEDWAY SUPERAMERICA LLC;PO BOX 1500;SPRINGFIELD;OH;45501;937-864-3000

VISTA Address*:	RED D MART 51451 SR 19 N ELKHART, IN 46514	VISTA ID#:	6738592
STATE LUST - State Leaking Underground Storage Tank / SRC# 5308		EPA/Agency ID:	N/A

Agency Address:	SAME AS ABOVE
Facility ID:	009063
Leak ID#:	8908512
Leak Date:	05/12/86
Substance:	PETROLUEM (LUST)
Remediation Status:	ACTIVE
Priority:	HIGH
Media Affected:	SOIL
Lead Agency:	M D K CORPORATION

Contact:	*M D K CORPORATION*
Contact Phone:	*219-533-4171*
Responsible Party:	*MDK OIL CO*
Description / Comment:	*OWNER ID: 002021OWNER : MDK CORP;PO BOX 96 415 NEW ST;GOSHEN;IN;46526;219-533-4171*

VISTA Address*:	**CHEKER UNIT #7074** **23221 US 33 E** **ELKHART, IN 46514**	VISTA ID#:	3224390

STATE LUST - State Leaking Underground Storage Tank / SRC# 5308	EPA/Agency ID:	N/A

Agency Address:	*SAME AS ABOVE*
Facility ID:	*003486*
Leak ID#:	*9707513*
Leak Date:	*07/14/97*
Substance:	*GASOLINE*
Remediation Status:	*ACTIVE*
Priority:	*MEDIUM*
Media Affected:	*SOIL,GROUND*
Lead Agency:	*A E PETERSON*
Contact:	*A E PETERSON*
Contact Phone:	*317-872-3146*
Responsible Party:	*CHEKER UNIT #7074*
Description / Comment:	*OWNER ID: 000107OWNER : SPEEDWAY SUPERAMERICA LLC;PO BOX 1500;SPRINGFIELD;OH;45501;937-864-3000*

STATE LUST - State Leaking Underground Storage Tank / SRC# 5308	EPA/Agency ID:	N/A

Agency Address:	*SAME AS ABOVE*
Facility ID:	*003486*
Leak ID#:	*9008586*
Leak Date:	*07/14/97*
Substance:	*PETROLUEM (LUST)*
Remediation Status:	*NO FURTHER ACTION*
Priority:	*LOW*
Media Affected:	*SOIL*
Lead Agency:	*A E PETERSON*
Contact:	*A E PETERSON*
Contact Phone:	*317-872-3146*
Responsible Party:	*CHEKER UNIT # 7074*
Description / Comment:	*OWNER ID: 000107OWNER : SPEEDWAY SUPERAMERICA LLC;PO BOX 1500;SPRINGFIELD;OH;45501;937-864-3000*

VISTA Address*:	ELKHART SLUDGE FARM COUNTY ROAD 3 ELKHART, IN 46514	VISTA ID#:	3219791
NFRAP / SRC# 5595		EPA ID:	IND980607717

Agency Address:	SAME AS ABOVE
EPA Region:	5
Congressional District:	0
Federal Facility:	Agency Code ( )
Facility Ownership:	OTHER
Site Incident Category:	unknown
Federal Facility Docket:	SITE IS NOT INCLUDED ON THE DOCKET
NPL Status:	NOT ON NPL
Incident Type:	Unknown
Proposed NPL Update #:	0
Final NPL Update #:	0
Financial Management System ID:	NOT REPORTED
Latitude:	0
Longitude:	0
Lat/Long Source:	Agency Code ( )
Lat/Long Accuracy:	Unknown
Dioxin Tier:	Unknown
USGS Hydro Unit:	4050001
RCRA Indicator:	Unknown

Unit Id:	0
Unit Name:	ENTIRE SITE

Type:	DISCOVERY	Lead Agency:	EPA FUND-FINANCED
Qualifier:	UNKNOWN	Category:	Unknown
Name:	NOT REPORTED	Actual Start Date:	NOT REPORTED
Plan Status:	Unknown	Actual Completion Date:	UNKNOWN

Type:	PRELIMINARY ASSESSMENT	Lead Agency:	EPA FUND-FINANCED
Qualifier:	HIGHER PRIORITY	Category:	Unknown
Name:	NOT REPORTED	Actual Start Date:	NOT REPORTED
Plan Status:	Unknown	Actual Completion Date:	UNKNOWN

Type:	SCREENING SITE INSPECTION	Lead Agency:	EPA FUND-FINANCED
Qualifier:	NO FURTHER REMEDIAL ACTION PLANNED	Category:	Unknown
Name:	NOT REPORTED	Actual Start Date:	NOT REPORTED
Plan Status:	Unknown	Actual Completion Date:	UNKNOWN

VISTA Address*:	ELKHART MARKET WEST LLC 1200 NAPPANNEE ST ELKHART, IN 46514	VISTA ID#:	7657607
SCL - State Equivalent CERCLIS List / SRC# 5614		Agency ID:	6960605

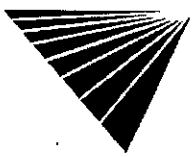
Agency Address:	*ELKHART MARKET WEST LLC 1200 N NAPPANEE ST ELKHART, IN 46514*
Status:	*UNKNOWN*
Facility Type:	*NOT AVAILABLE*
Lead Agency:	*NOT AVAILABLE*
State Status:	*NOT AVAILABLE*
Pollutant 1:	*UNKNOWN*
Pollutant 2:	*UNKNOWN*
Pollutant 3:	*UNKNOWN*

VISTA Address*:	DEL'S MARATHON SERVICE STATION SR 19 CR 6 ELKHART, IN 46514	VISTA ID#:	5540729
STATE LUST - State Leaking Underground Storage Tank / SRC# 5308		EPA/Agency ID:	N/A

Agency Address:	*SAME AS ABOVE*
Facility ID:	*019498*
Leak ID#:	*9508512*
Substance:	*PETROLUEM (LUST)*
Remediation Status:	*ACTIVE*
Priority:	*LOW*
Media Affected:	*SOIL*
Responsible Party:	*DEL'S MARATHON SERVICE STATION*
Description / Comment:	*OWNER ID: 011587OWNER : TERESA SHIEBER;SR 19 CR 6;ELKHART;IN;46514;UNKNOWN*

VISTA Address*:	CONRAIL/COUNTY ROAD 1 US 33 WEST/ INDIANA 19 ELKHART, IN	VISTA ID#:	11639748
SCL - State Equivalent CERCLIS List / SRC# 5613		Agency ID:	0000002

Agency Address:	*SAME AS ABOVE*
Status:	*UNKNOWN*
Facility Type:	*NOT AVAILABLE*
Lead Agency:	*NOT AVAILABLE*
State Status:	*CLEANUP*
Pollutant 1:	*UNKNOWN*
Pollutant 2:	*UNKNOWN*
Pollutant 3:	*UNKNOWN*



VISTA Address*:	EARTHMOVERS LDFL 1/2MI E CO RD 7 ELKHART, IN 46514	VISTA ID#:	131649
NFRAP / SRC# 5595		EPA ID:	IND980607725

Agency Address:	SAME AS ABOVE
EPA Region:	5
Congressional District:	0
Federal Facility:	Agency Code ( )
Facility Ownership:	OTHER
Site Incident Category:	unknown
Federal Facility Docket:	SITE IS NOT INCLUDED ON THE DOCKET
NPL Status:	NOT ON NPL
Incident Type:	Unknown
Proposed NPL Update #:	0
Final NPL Update #:	0
Financial Management System ID:	NOT REPORTED
Latitude:	0
Longitude:	0
Lat/Long Source:	Agency Code ( )
Lat/Long Accuracy:	Unknown
Dioxin Tier:	Unknown
USGS Hydro Unit:	4050001
RCRA Indicator:	Unknown
Unit Id:	0
Unit Name:	ENTIRE SITE

Type:	DISCOVERY	Lead Agency:	EPA FUND-FINANCED
Qualifier:	UNKNOWN	Category:	Unknown
Name:	NOT REPORTED	Actual Start Date:	NOT REPORTED
Plan Status:	Unknown	Actual Completion Date:	UNKNOWN

Type:	PRELIMINARY ASSESSMENT	Lead Agency:	STATE, FUND FINANCED
Qualifier:	NO FURTHER REMEDIAL ACTION PLANNED	Category:	Unknown
Name:	NOT REPORTED	Actual Start Date:	NOT REPORTED
Plan Status:	Unknown	Actual Completion Date:	UNKNOWN

VISTA Address*:	OX BOW COUNTY PARK 23427 CR 45 ELKHART, IN 46514	VISTA ID#:	1884313
STATE LUST - State Leaking Underground Storage Tank / SRC# 5308		EPA/Agency ID:	N/A

Agency Address:	SAME AS ABOVE
Facility ID:	010842
Leak ID#:	9101555
Leak Date:	05/27/86
Substance:	PETROLUEM (LUST)

Remediation Status:	*ACTIVE*
Priority:	*LOW*
Media Affected:	*SOIL*
Lead Agency:	*DALE GRAYBILL*
Contact:	*DALE GRAYBILL*
Contact Phone:	*215-875-6125*
Responsible Party:	*OX BOW COUNTY PARK*
Description / Comment:	*OWNER ID: 001604OWNER : ELKHART COUNTY COMMISSIONERS;117 N 2ND ST;GOSHEN;IN;46526;219-534-3571*

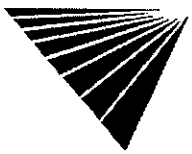
VISTA Address*:	**SYCAMORE STREET 108, 116 117 ELKHART, IN 46514**	VISTA ID#:	415945
NFRAP / SRC# 5595		EPA ID:	IND982425415

Agency Address:	*SAME AS ABOVE*		
Name:	**Lead Agency:**	**Actual Start Date:**	**Actual Completion Date:**
NOT REPORTED	*FEDERAL ENFORCEMENT*	*NOT REPORTED*	*UNKNOWN*
NOT REPORTED	*FEDERAL ENFORCEMENT*	*NOT REPORTED*	*UNKNOWN*

Financial Type:	**Date:**	**Financial Amount ($):**
DECOMMITMENT	*APRIL 30, 1987*	*21500*
DEOBLIGATION	*JANUARY 5, 1988*	*10000*
ACTUAL OBLIGATION	*APRIL 30, 1987*	*21500*

Alias Name:	*SYCAMORE STREET*		
Alias Street:	*NOT REPORTED*		
Alias City:	*ELKHART*	**Alias Latitude:**	*4142120*
Alias Zip:	*NOT REPORTED*	**Alias Longitude:**	*8558240*
Alias State:	*IN*		
Alias Description:	*NOT REPORTED*		

EPA Region:	*5*
Congressional District:	*0*
Federal Facility:	*Agency Code ( )*
Facility Ownership:	*UNKNOWN*
Site Incident Category:	*unknown*
Federal Facility Docket:	*SITE IS NOT INCLUDED ON THE DOCKET*
NPL Status:	*NOT ON NPL*
Incident Type:	*Unknown*
Proposed NPL Update #:	*0*
Final NPL Update #:	*0*
Financial Management System ID:	*058M*
Latitude:	*0*
Longitude:	*0*
Lat/Long Source:	*Agency Code ( )*
Lat/Long Accuracy:	*Unknown*
Dioxin Tier:	*Unknown*
USGS Hydro Unit:	*4050001*
RCRA Indicator:	*Unknown*



Unit Id:	*0*
Unit Name:	*ENTIRE SITE*
Unit Id:	*1*
Unit Name:	*REMEDIATION OF ENTIRE SITE*

Type:	*DISCOVERY*	**Lead Agency:**	*EPA FUND-FINANCED*
Qualifier:	*UNKNOWN*	**Category:**	*Unknown*
Name:	*NOT REPORTED*	**Actual Start Date:**	*NOT REPORTED*
Plan Status:	*Unknown*	**Actual Completion Date:**	*DECEMBER 1, 1986*
Type:	*PRELIMINARY ASSESSMENT*	**Lead Agency:**	*STATE, FUND FINANCED*
Qualifier:	*NO FURTHER REMEDIAL ACTION PLANNED*	**Category:**	*Unknown*
Name:	*NOT REPORTED*	**Actual Start Date:**	*NOT REPORTED*
Plan Status:	*Unknown*	**Actual Completion Date:**	*SEPTEMBER 1, 1991*
Type:	*REMOVAL ACTION*	**Lead Agency:**	*EPA FUND-FINANCED*
Qualifier:	*STABILIZATION*	**Category:**	*Unknown*
Name:	*NOT REPORTED*	**Actual Start Date:**	*MAY 1, 1987*
Plan Status:	*Unknown*	**Actual Completion Date:**	*JUNE 1, 1987*

VISTA Address*:	**EARTHMOVERS LANDFILL** **CR 26 1/2 MILE EAST OF CR 7** **IN**	VISTA ID#:	3459399
STATE SWLF - Solid Waste Landfill / SRC# 5612		Agency ID:	20-03

Agency Address:	*SAME AS ABOVE*
Facility Type:	*LANDFILL*
Facility Status:	*NOT AVAILABLE*
Permit Status:	*NOT AVAILABLE*

VISTA Address*:	**ELKHART COUNTY** **IN**	VISTA ID#:	5379766
STATE SWLF - Solid Waste Landfill / SRC# 5309		Agency ID:	20-4

Agency Address:	*SAME AS ABOVE*
Facility Type:	*SPECIAL WASTE*
Facility Status:	*NOT AVAILABLE*
Permit Status:	*NOT AVAILABLE*

VISTA Address*:	**COUNTY ROAD 45 PIT C/D SITE** **24399 CR 45 NEAR TOWN OF DUNLAP** **NA, IN**	VISTA ID#:	1884314
STATE SWLF - Solid Waste Landfill / SRC# 5612		Agency ID:	20-08

Agency Address:	*SAME AS ABOVE*
Facility Type:	*CONSTRUCTION/DEMOLITION*
Facility Status:	*NOT AVAILABLE*
Permit Status:	*NOT AVAILABLE*

VISTA Address*:	FEDERAL PAPR BOARD ELKART, IN	VISTA ID#:	2804797
SPL - State Equivalent Priority List / SRC# 5532		EPA/Agency ID:	N/A

Agency Address:	*SAME AS ABOVE*
Status:	*UNKNOWN*
Facility Type:	*NOT AVAILABLE*
Lead Agency:	*NOT AVAILABLE*
State Status:	*NOT AVAILABLE*
Pollutant 1:	*UNKNOWN*
Pollutant 2:	*UNKNOWN*
Pollutant 3:	*UNKNOWN*

VISTA Address*:	OXBOW PARK SFS IN	VISTA ID#:	3453202
STATE SWLF - Solid Waste Landfill / SRC# 5097		Agency ID:	SW-260

Agency Address:	*SAME AS ABOVE*
Facility Type:	*NOT AVAILABLE*
Facility Status:	*INACTIVE*
Permit Status:	*NOT AVAILABLE*

VISTA Address*:	ELKHART COUNTRY LF IN	VISTA ID#:	3452641
STATE SWLF - Solid Waste Landfill / SRC# 5097		Agency ID:	SW-101

Agency Address:	*SAME AS ABOVE*
Facility Type:	*NOT AVAILABLE*
Facility Status:	*INACTIVE*
Permit Status:	*NOT AVAILABLE*

VISTA Address*:	EARTHMOVERS IN	VISTA ID#:	2804738
STATE SWLF - Solid Waste Landfill / SRC# 5309		Agency ID:	20-3

Agency Address:	*SAME AS ABOVE*
Facility Type:	*SPECIAL WASTE*
Facility Status:	*NOT AVAILABLE*
Permit Status:	*NOT AVAILABLE*

VISTA Address*:	SCHULT HOMES SFS IN	VISTA ID#:	3453304
STATE SWLF - Solid Waste Landfill / SRC# 5097		Agency ID:	SW-298

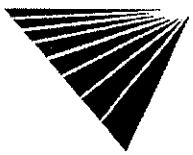
Agency Address:	*SAME AS ABOVE*
Facility Type:	*NOT AVAILABLE*
Facility Status:	*INACTIVE*
Permit Status:	*NOT AVAILABLE*

VISTA Address*:	NEW PARIS LF IN	VISTA ID#:	3453185
STATE SWLF - Solid Waste Landfill / SRC# 5097		Agency ID:	SW-22

Agency Address:	*SAME AS ABOVE*
Facility Type:	*NOT AVAILABLE*
Facility Status:	*INACTIVE*
Permit Status:	*NOT AVAILABLE*

VISTA Address*:	OAK RIDGE CEMETARY SFS IN	VISTA ID#:	3453192
STATE SWLF - Solid Waste Landfill / SRC# 5097		Agency ID:	SW-303

Agency Address:	*SAME AS ABOVE*
Facility Type:	*NOT AVAILABLE*
Facility Status:	*INACTIVE*
Permit Status:	*NOT AVAILABLE*



SITE ASSESSMENT REPORT
(ALL DATABASES SEARCHED TO 1 MILE)

DESCRIPTION OF DATABASES SEARCHED

A) DATABASES SEARCHED TO 1 MILE

NPL
SRC#: 5593

VISTA conducts a database search to identify all sites within 1 mile of your property.
The agency release date for NPL was February, 1999.

The National Priorities List (NPL) is the EPA's database of uncontrolled or abandoned hazardous waste sites identified for priority remedial actions under the Superfund program. A site must meet or surpass a predetermined hazard ranking system score, be chosen as a state's top priority site, or meet three specific criteria set jointly by the US Dept of Health and Human Services and the US EPA in order to become an NPL site.

SPL
SRC#: 5532

VISTA conducts a database search to identify all sites within 1 mile of your property.
The agency release date for List of Hazardous Waste Response Sites (ISM scored) was December, 1998.

This database is provided by the Department of Environmental Management, Office of Environmental Response. The agency may be contacted at: 317-308-3052.

CORRACTS
SRC#: 5596

VISTA conducts a database search to identify all sites within 1 mile of your property.
The agency release date for HWDMS/RCRIS was February, 1999.

The EPA maintains this database of RCRA facilities which are undergoing "corrective action". A "corrective action order" is issued pursuant to RCRA Section 3008 (h) when there has been a release of hazardous waste or constituents into the environment from a RCRA facility. Corrective actions may be required beyond the facility's boundary and can be required regardless of when the release occurred, even if it predates RCRA.

B) DATABASES SEARCHED TO 1 MILE

CERCLIS
SRC#: 5594

VISTA conducts a database search to identify all sites within 1 mile of your property.
The agency release date for CERCLIS was January, 1999.

The CERCLIS List contains sites which are either proposed to or on the National Priorities List(NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL. The information on each site includes a history of all pre-remedial, remedial, removal and community relations activiies or events at the site, financial funding information for the events, and unrestricted enforcement activities.

NFRAP
SRC#: 5595

VISTA conducts a database search to identify all sites within 1 mile of your property.
The agency release date for CERCLIS-NFRAP was January, 1999.

NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly, or the contamination was not serious enough to require Federal Superfund action or NPL consideration.

SCL
SRC#: 5613

VISTA conducts a database search to identify all sites within 1 mile of your property.
The agency release date for State Cleanup List was January, 1999.

This database is provided by the Department of Environmental Management. The agency may be contacted at: 317-308-3023.

SCL
SRC#: 5614

VISTA conducts a database search to identify all sites within 1 mile of your property.
The agency release date for Voluntary Cleanup Site Listing was January, 1999.

This database is provided by the Department of Environmental Management. The agency may be contacted at: 317-308-3023.

RCRA-TSD
SRC#: 5596

VISTA conducts a database search to identify all sites within 1 mile of your property.
The agency release date for HWDMS/RCRIS was February, 1999.

The EPA's Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Facilities database is a compilation by the EPA of facilities which report generation, storage, transportation, treatment or disposal of hazardous waste. RCRA TSDs are facilities which treat, store and/or dispose of hazardous waste.

SWLF
SRC#: 3121

VISTA conducts a database search to identify all sites within 1 mile of your property.
The agency release date for Solid Waste Incinerator Notifiers was July, 1996.

This database is provided by the Department of Environmental Management. The agency may be contacted at: 317-232-0066.

SWLF
SRC#: 5097

VISTA conducts a database search to identify all sites within 1 mile of your property.
The agency release date for Landfills Closed Prior To 2/10/89 was July, 1998.

This database is provided by the Department of Environmental Management. The agency may be contacted at: 317-232-0066.

SWLF
SRC#: 5309

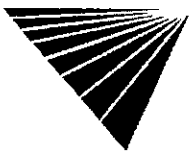
VISTA conducts a database search to identify all sites within 1 mile of your property.
The agency release date for Special Waste Disposal Sites List was April, 1998.

This database is provided by the Department of Environmental Management, Office of Solid and Hazardous Waste Mgmt. The agency may be contacted at: 317-232-0066.

SWLF
SRC#: 5612

VISTA conducts a database search to identify all sites within 1 mile of your property.
The agency release date for Permitted Solid Waste Facilities List was January, 1999.

This database is provided by the Department of Environmental Management. The agency may be contacted at: 317-232-0066.



LUST
SRC#: 5308

VISTA conducts a database search to identify all sites within 1 mile of your property. **The agency release date for State of Indiana Spills Report - LUST Sites was September, 1998.**

This database is provided by the Department of Environmental Management. The agency may be contacted at: 317-308-3008.

C) DATABASES SEARCHED TO 1 MILE

UST's
SRC#: 5307

VISTA conducts a database search to identify all sites within 1 mile of your property. **The agency release date for Underground Storage Tank Database was September, 1998.**

This database is provided by the Department of Environmental Management, UST Section. The agency may be contacted at: 317-308-3008; Caution-Many states do not require registration of heating oil tanks, especially those used for residential purposes.

D) DATABASES SEARCHED TO 1 MILE

ERNS
SRC#: 4939

VISTA conducts a database search to identify all sites within 1 mile of your property. The agency release date for was July, 1998.

The Emergency Response Notification System (ERNS) is a national database containing records from October 1986 to the release date above and is used to collect information for reported releases of oil and hazardous substances. The database contains information from spill reports made to federal authorities including the EPA, the US Coast Guard, the National Response Center and the Department of Transportation. The ERNS hotline number is (202) 260-2342.

RCRA-LgGen
SRC#: 5596

VISTA conducts a database search to identify all sites within 1 mile of your property. **The agency release date for HWDMS/RCRIS was February, 1999.**

The EPA's Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Facilities database is a compilation by the EPA of facilities which report generation, storage, transportation, treatment or disposal of hazardous waste. RCRA Large Generators are facilities which generate at least 1000 kg./month of non-acutely hazardous waste (or 1 kg./month of acutely hazardous waste).

RCRA-SmGen
SRC#: 5596

VISTA conducts a database search to identify all sites within 1 mile of your property. **The agency release date for HWDMS/RCRIS was February, 1999.**

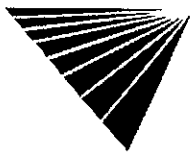
The EPA's Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Facilities database is a compilation by the EPA of facilities which report generation, storage, transportation, treatment or disposal of hazardous waste. RCRA Small and Very Small generators are facilities which generate less than 1000 kg./month of non-acutely hazardous waste.

SPILL
SRC#: 5310

VISTA conducts a database search to identify all sites within 1 mile of your property. **The agency release date for State of Indiana Spills Report was September, 1998.**

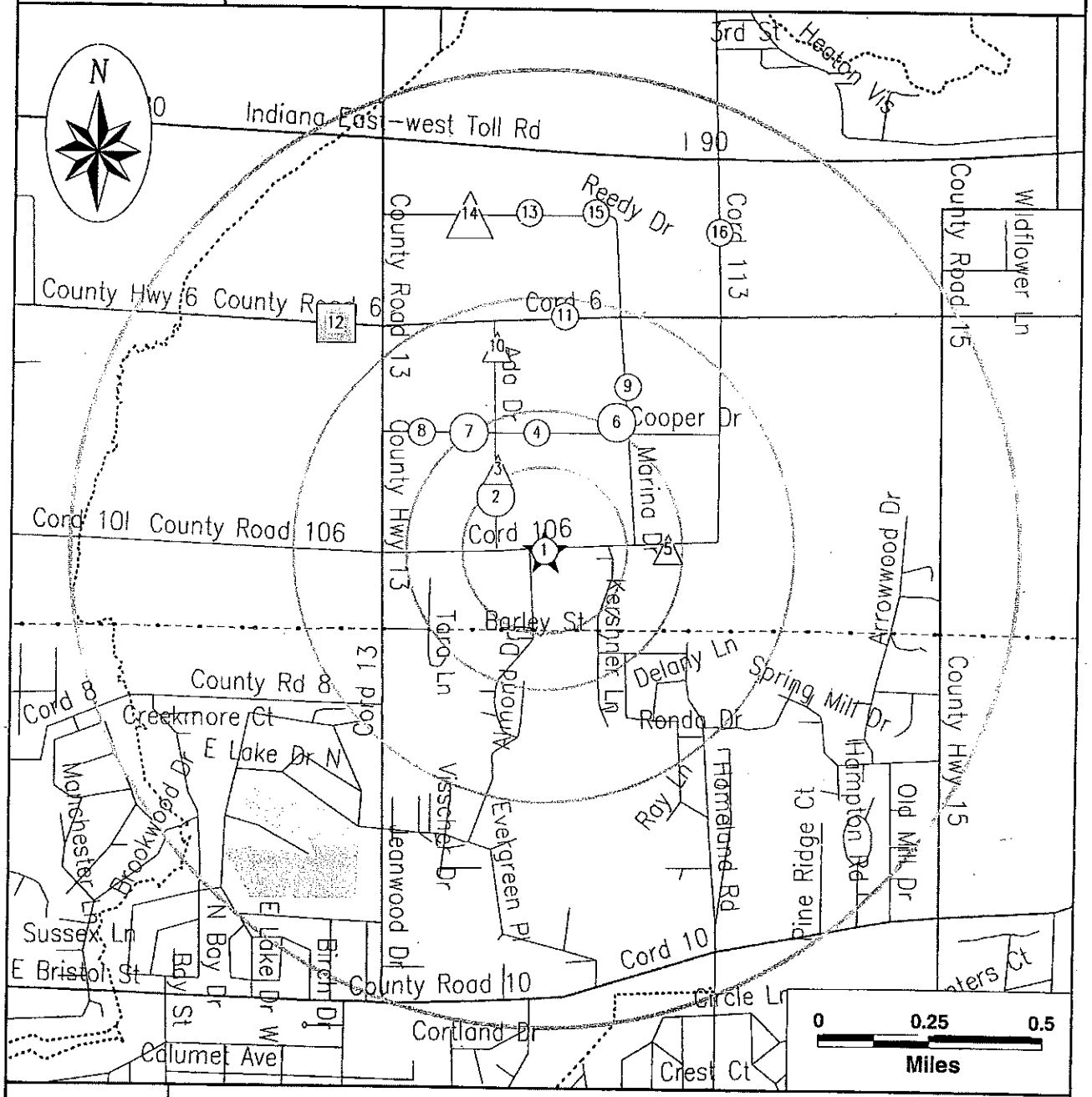
This database is provided by the Department of Environmental Management. The agency may be contacted at: 317-308-3008.

End of Report



SITE ASSESSMENT REPORT
(ALL DATABASES SEARCHED TO 1 MILE)

Map of Sites within 1 Mile



Subject Site	Category: Databases Searched to:	A 1 mi.	B 1/2 mi.	C 1/4 mi.	D 1/8 mi.
★	Single Sites	◆	■	△	○
	Multiple Sites	◆	■	△	○
		NPL, SPL, CORRACTS (TSD)	CERCLIS\ NFRAP, TSD, LUST, SWLF, SCL	UST	ERNS, GENERATORS

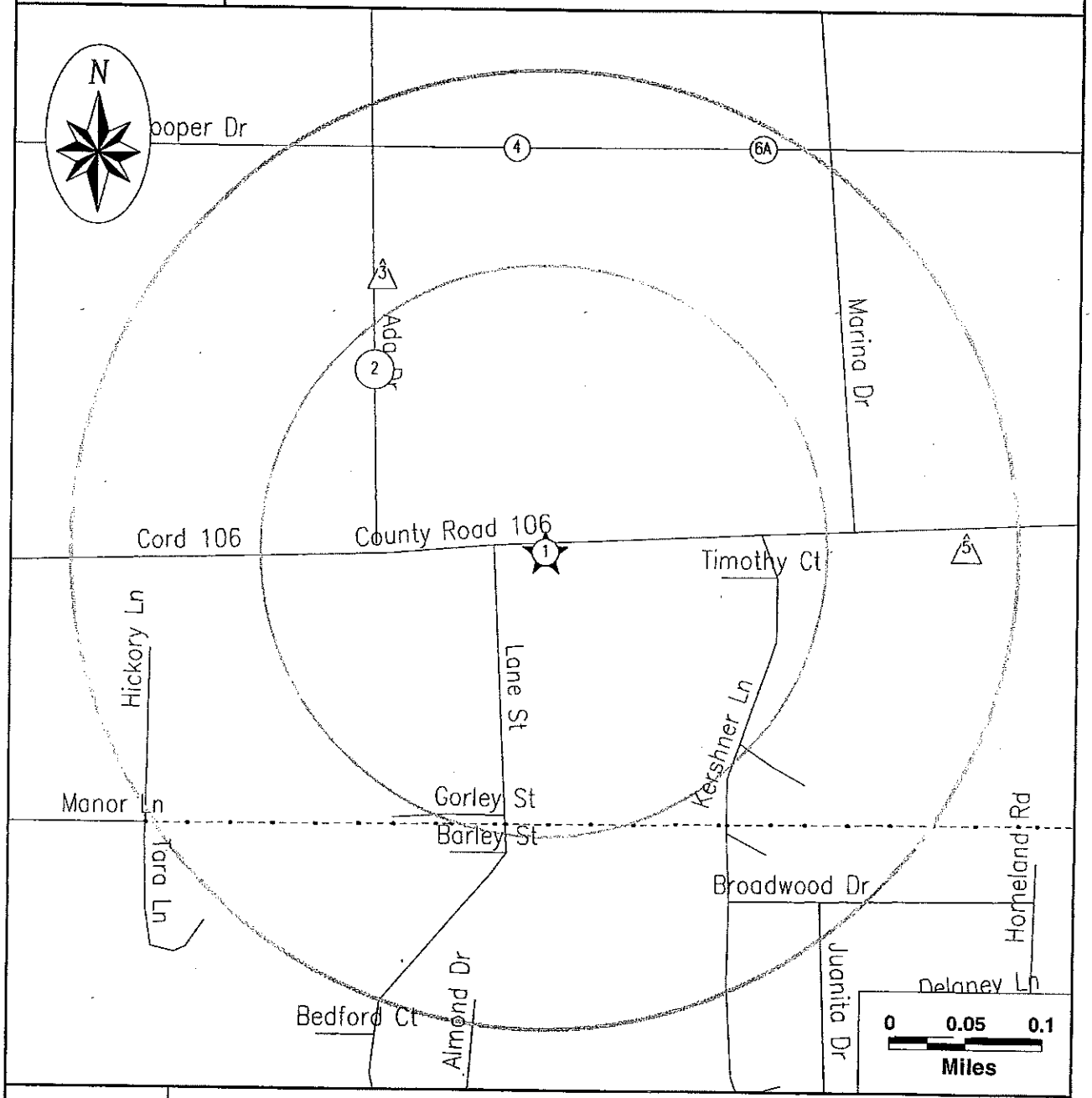
Highways and Major Roads
Roads
Railroads
Rivers or Water Bodies
Utilities

For More Information Call VISTA Information Solutions, Inc. at **1 - 800 - 767 - 0403**
Report ID: **30738010D**

Date of Report: **April 19, 1999**

SITE ASSESSMENT REPORT
(ALL DATABASES SEARCHED TO 1 MILE)

Map of Sites within 1/4 Mile



Subject Site	Category:	A	B	C	D
★	Databases Searched to:	1 mi.	1/2 mi.	1/4 mi.	1/8 mi.
	Single Sites	◆	■	△	○
	Multiple Sites	◆	■	△	○
		NPL, SPL, CORRACTS (TSD)	CERCLIS\ NFRAP, TSD, LUST, SWLF, SCL	UST	ERNS, GENERATORS

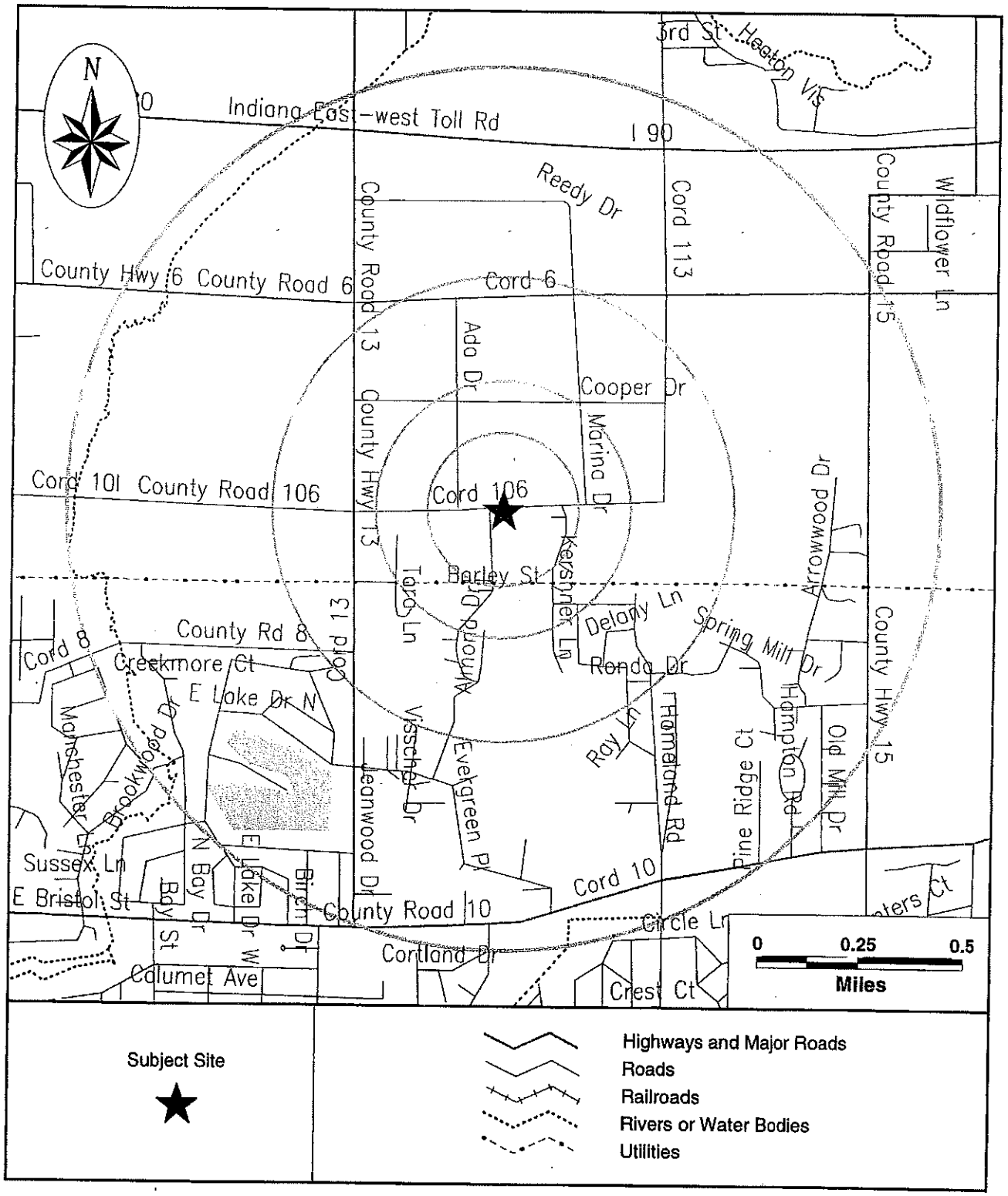
Highways and Major Roads
Roads
Railroads
Rivers or Water Bodies
Utilities

For More Information Call VISTA Information Solutions, Inc. at **1 - 800 - 767 - 0403**
Report ID: **30738010D**

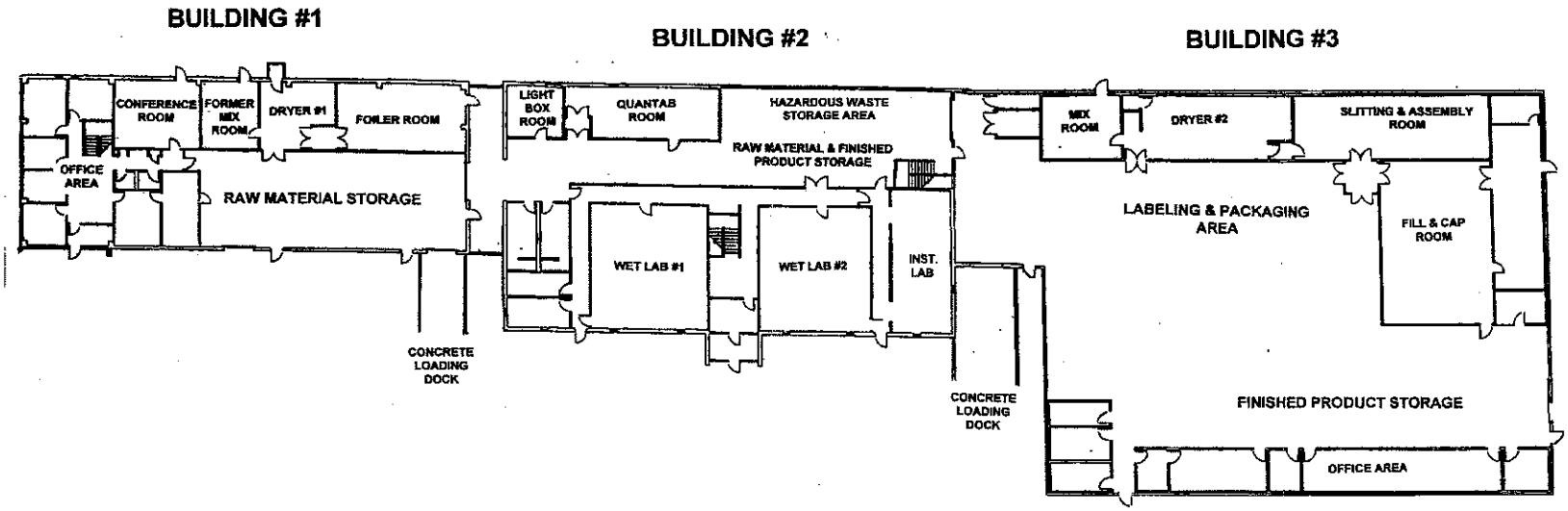
Date of Report: **April 19, 1999**

SITE ASSESSMENT REPORT
(ALL DATABASES SEARCHED TO 1 MILE)

Street Map



Appendix B
Selected Site Photographs



30' 0 30'

Approximate Scale: 1" = 30'

NOTES:

1. Based upon an "not-to-scale" floor plan provided by ETS; at an estimated scale of 1" = 30'.

2. All locations are approximate.

DANAHER CORPORATION
ETS FACILITY - ELKHART, INDIANA

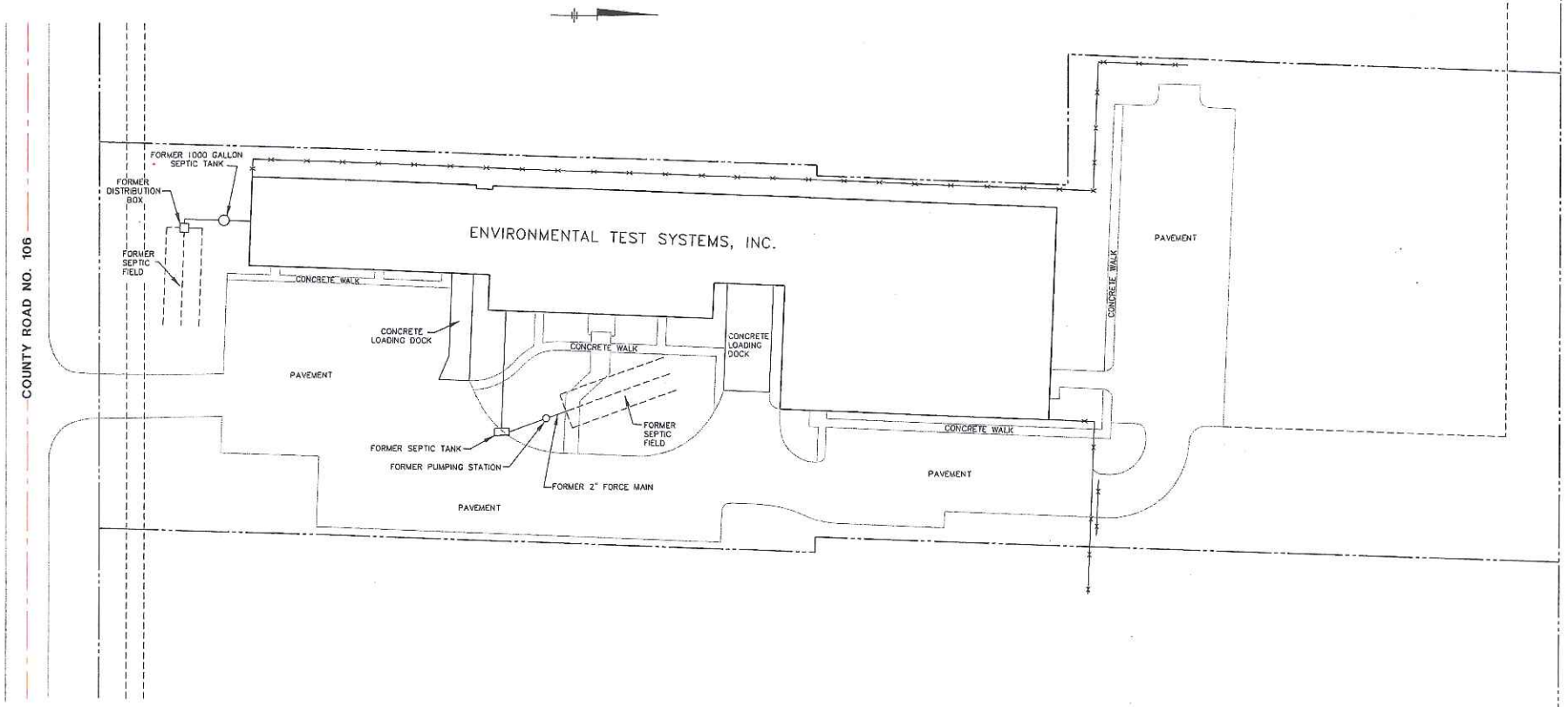
PHASE I ENVIRONMENTAL SITE ASSESSMENT

BUILDINGS #1, #2 AND #3 - FLOOR PLAN FIRST FLOOR

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE 3

05/99 SYR-D54-DJH
30738010/30738g02.cdr



LEGEND:

- APPROXIMATE PROPERTY LINE
- APPROXIMATE EASEMENT LINE
- CENTERLINE OF ROAD
- FENCE
- EXISTING BUILDING

NOTES:

1. ALL SITE FEATURES ARE APPROXIMATE
2. BASE MAP SITE FEATURES LOCATED USING DISTANCES SHOWN ON A MAP PROVIDED BY ETS, INC. CORPORATION ENTITLED LAY-OUT STACK LOCATIONS, DATED 9/19/97.
3. SEPTIC SYSTEMS ADDED BY SCALING FROM A MAP ENTITLED: ADDITION TO ENVIRONMENTAL TEST SYSTEMS INC., DATED 6/13/88, (JOB: 88-215).
4. PROPERTY LINES AND EASEMENT LINES ADDED FROM A MAP PROVIDED BY ETS, INC., (NO TITLE OR DATE); THEY SHOULD NOT BE CONSIDERED ACCURATE.
5. LOCATION OF SEPTIC FIELD EAST OF THE FACILITY WAS ADJUSTED FROM THE PROPOSED ADDITION MAP (6/13/88) BASED ON DISCUSSIONS WITH THE ETS PLANT ENGINEER ON 4/28/99.

0 30' 60'
GRAPHIC SCALE

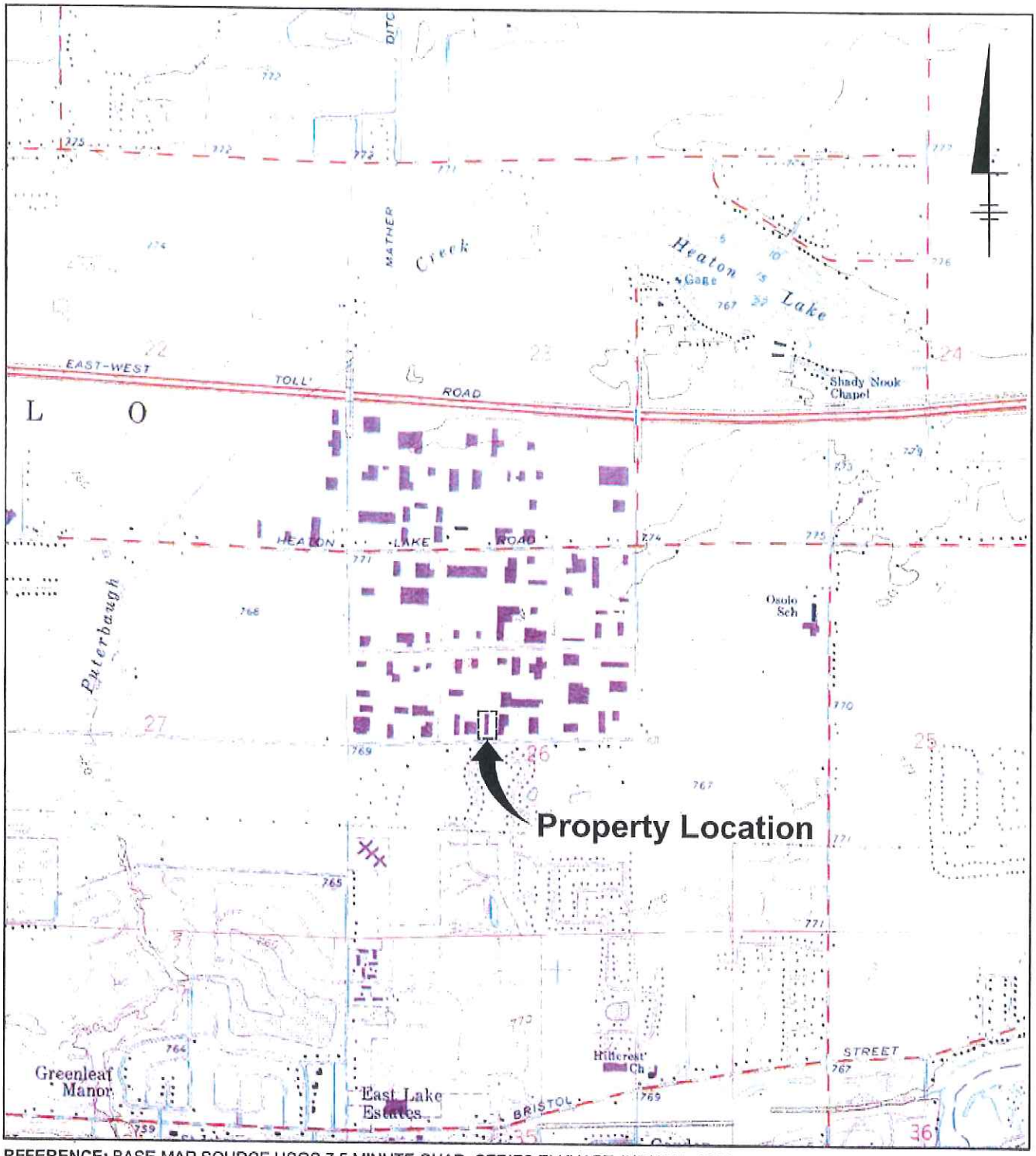
DANAHER CORPORATION
ETS FACILITY - ELKHART, INDIANA
PHASE I ENVIRONMENTAL SITE ASSESSMENT

PROPERTY MAP

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE 2

x (XREF)
L: ON=*; OFF = REF*
P: DBJ.PCP OR BBJE.PCP
7/10/99-54-SYR-JWS
30738020/30738B06.DWG



REFERENCE: BASE MAP SOURCE USGS 7.5 MINUTE QUAD. SERIES ELKHART, INDIANA, 1961.

2000' 0 2000'

Approximate Scale: 1" = 2000'

AREA LOCATION

DANAHER CORPORATION
ETS FACILITY - ELKHART, INDIANA

PHASE I ENVIRONMENTAL SITE ASSESSMENT

PROPERTY LOCATION MAP

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE 1

06/99 SYR-D54-DJH
30738010/30738n05.cdr

TECHNICAL REPORT

Phase I Environmental Site Assessment

Environmental Test Systems, Inc.
Elkhart, Indiana

Danaher Corporation
Washington, D.C.

August 1999

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

6723 Towpath Road, P.O. Box 66
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Table of Contents

Figures

Appendices

Executive Summary

The Environmental Test Systems, Inc. (ETS) facility is located at 23575 County Road 106 within Northland Industrial Park, which is northeast of the City of Elkhart, in Osolo Township, Elkhart County, Indiana. The ETS facility manufactures paper test strips for various purposes, and also houses laboratories for product research and development and offices for administration and marketing. ETS was purchased by Hach Company in April 1998, however, operations at the facility have generally remained unchanged under the new ownership and ETS continues to operate as a wholly-owned subsidiary of Hach Company.

Located along the western side of the property and immediately north of County Road 106 are three attached buildings (Buildings #1, #2, and #3). Building #1 is the original building constructed in 1985, and Buildings #2 and #3 were added in 1989 and 1994, respectively. Together the metal buildings with a concrete slab on grade foundations total approximately 40,000 square feet on an approximately 4.4-acre property. Paved parking areas are located north and east of the three buildings and comprise most of the remaining property. The northernmost portion of the property is an open lawn area. A drainage swale conveys surface-water runoff eastward along the northern property boundary and then southward along a portion of the eastern property boundary. The ETS property is bounded to the north, east, and west by other manufacturing facilities, and to the south by County Road 106. Residential properties are located directly south of County Road 106.

The ETS property and surrounding area is relatively flat, sloping gently southwest toward the St. Joseph River, which is approximately 1.3 miles south of the site. Surface elevations on the property range from approximately 770 to 775 feet above mean sea level based on published sources. Overburden in this area consists primarily of sand and gravel, and is underlain by bedrock at a depth of 50 to 150 feet below grade. The water table is located approximately 5 to 10 feet below grade, and based on the topography, shallow groundwater flow is expected to be southwest toward the St. Joseph River. A two-inch well was observed on the ETS property immediately east of Building #1, and is used for the building's fire sprinkler system.

The paper test strips manufactured at the facility are chemically treated for testing chemical presence and/or quantities for several applications, with the majority of products used by the pool and spa industry (approximately 60 percent). Various chemicals including arsenic, chromium, silver, and organic solvents (i.e., primarily reagent alcohol, which contains 90 percent ethyl alcohol, five percent isopropyl alcohol, and five percent methanol; and small quantities of acetone, ethyl acetate, isopropyl alcohol, methyl ethyl ketone, and toluene) are associated with manufacturing these chemically treated paper strips. Manufacturing wastes generated at the facility are collected and stored on the first floor of Building #2 in an open warehouse area. At the time of the site visit, BBL observed the following sealed 55-gallon steel drums in this warehouse area: three drums labeled as "hazardous waste," two drums labeled as "non-regulated waste," four drums labeled as "flammable," and various cardboard boxes containing various small containers of chemicals (lab packs). Since this area appears to be a high traffic area and no secondary containment for the drums labeled as "hazardous waste" was observed, a separate storage area or building should be considered. Based on the results of the VISTA database search, the ETS facility was listed in only one of the databases searched, as a small quantity hazardous waste generator.

The facility is currently connected to a municipal water supply and sewer system. Prior to 1992, sanitary and process wastewaters discharged to two septic systems, which were located south and east of Buildings #1 and #2. Liquid from each of the septic tanks was sampled in 1992 and the results indicate that the tank on the east side of Building #2 contained toluene at a concentration of 54 parts per billion (ppb), and the tank located on the south side of Building #1 contained 1,1- dichloroethene and 1,1,1-trichloroethane at concentrations of 1,940 ppb and 2,770 ppb, respectively. ETS has indicated that these tanks were emptied, crushed, and abandoned in place in 1992.

There are two dryer units at the facility where chemical reagents are applied to paper that is then run through the dryer unit. The dryer units generate volatile organic compound (VOC) emissions that are released through an air stack

directly to the outside of the building. These emissions are currently regulated by the Indiana Department of Environmental Management (IDEM). According to ETS personnel, the emissions generated by each of the dryer units at the facility are well below the IDEM permitted limits.

No aboveground storage tanks (ASTs) or underground storage tanks (USTs) were observed by BBL during the site visit. According to ETS personnel, an underground concrete containment tank was removed from the facility in 1997. The tank, which was located along the west side of Building #3, was to contain any potential liquid spills generated by Dryer #2. A catch basin located beneath Dryer #2 was designed to convey the liquid to the tank. According to ETS personnel, the catch basin has been sealed and the tank had no outlet and was not used prior to removal.

Recommendations

Based on the results of the Phase I Environmental Site Assessment (ESA), BBL recommends the following Phase II ESA sample collection and analysis program for the ETS property.

Areas of Interest	Estimated Number of Sample Locations	Media of Interest/ Type of Sample	Recommended Analyses	Rationale
Former Septic System Tanks (crushed and left in place)	Install up to two temporary wells to five feet below the water table (approximately 10' below ground surface [bgs]) in the immediate vicinity of the two septic system tanks.	Up to two soil samples (one soil sample from a depth near the bottom of each tank); up to two groundwater samples (one groundwater sample from each temporary well location), if encountered.	Target Compound List (TCL) VOCs, TCL semi-volatile organic compounds (SVOCs), Target Analyte List (TAL) inorganics.	Assess possible subsurface effect of the former septic tanks.
Former Septic System Leach Fields (left in place)	Install up to four temporary wells to five feet below the water table (approximately 10' bgs within the two leach fields).	Up to four soil samples (one unsaturated soil sample from a depth at or below the depth of the leach field pipes); up to four groundwater samples (if encountered) from the leach fields.	TCL VOCs, TCL SVOCs, TAL inorganics.	Assess possible subsurface effect of the former leach fields.

1. Introduction

1.1 Purpose

The purpose of this Phase I Environmental Site Assessment (Phase I ESA) is to identify readily apparent existing or potential conditions at the Environmental Test Systems, Inc. (ETS) facility located in Elkhart, Indiana, that may pose a potential environmental liability or restriction to land use. Properties within an approximate one-mile radius of the site were also assessed through a database review to identify potential off-site environmental concerns.

1.2 Tasks

The following tasks were performed as part of the Phase I ESA:

- A records review, consisting primarily of a review of the facility files, as provided by ETS personnel; collection and review of readily available aerial photographs of the facility; and acquisition and review of an ASTM-type radius search profile from VISTA Environmental, Inc. (VISTA). The VISTA report is provided as Appendix A. Blasland, Bouck & Lee, Inc. (BBL) also requested information under the Freedom of Information Act (FOIA) from the United States Environmental Protection Agency (USEPA) and the Indiana Department of Environmental Management (IDEM) pertaining to environmental concerns for the ETS facility.

- A site reconnaissance, conducted by two BBL staff members on April 14, 1999. The reconnaissance primarily focused on current and past operations at the facility with an emphasis on the raw chemical and waste handling practices. A reconnaissance of adjacent properties was also completed to provide a preliminary evaluation of the potential impact the site may have on adjacent properties, or the potential impact the adjacent properties may have on the site. Information pertaining to the site's geology and hydrogeology was also reviewed.

- Interviews with persons possessing knowledge of current and past operations at the facility were conducted by BBL personnel. Mr. James Demarest, ETS Group Vice President, was the key ETS employee interviewed. Additional employees were also interviewed to clarify specific information such as material and waste handling practices. The objective of the interviews was to confirm the information gathered during the site reconnaissance and to further clarify current and past operating procedures, and material and waste handling practices.

- Report preparation including a summary of recommendations based on the Phase I ESA findings.

In addition, at the request of Danaher Corporation (Danaher) and with permission of the property owner (Ludwig Investments, Inc.), BBL personnel also conducted a preliminary site walkover of the adjacent properties to the east (53471 Marina Drive and 23537 County Road 106). According to Mr. James Demarest, ETS is in the process of acquiring these properties to facilitate expansion of their operations.

1.3 Report Organization

This Phase I ESA Report is presented in eight sections. Section 1 presents the scope of the Phase I ESA activities, organization of the report, and the limitations of the ESA. Section 2 presents an overview of the ETS property and buildings. Section 3 presents a site background and operating history of the ETS facility. Section 4 presents a description of the environmental setting for the ETS property, including a brief description of the regional geology. Section 5 presents the findings of the site walkover performed at the facility, which consists of a detailed description of the facility and current operations. Section 6 presents a summary of the environmental/regulatory agency inquiries performed for the facility. Section 7 presents the conclusions of the Phase I ESA, and recommendations for further assessment activities. Section 8 presents a list of references that were used during the Phase I ESA.

1.4 Limitations of the ESA

The conclusions reached are based on the limits of the assessment described in this report. BBL can offer no assurances and assumes no responsibility for site conditions or activities that were outside the scope of the inquiry as documented in this report.

It is understood by Danaher that BBL has relied on the accuracy of documents, oral information, and other material and information provided by sources documented in this report, including ETS. There can be no assurance, and BBL offers no assurance, that site conditions do not exist, or will not exist in the future, that were undetected and that could lead to liability in connection with the site. Similarly, past and present activities on the site indicating the potential for the existence of environmental concerns may not have been discovered by BBL's inquiries. Such activities may include those that would indicate the potential for regulated hazardous substances at the site. BBL has reviewed the information obtained in its limited assessment, in keeping with existing applicable environmental consulting standards and enforcement practices, but cannot predict what actions any given agency may take presently or what standards and practices may apply to the site in the future.

In performing its assessment, BBL has used reasonable care and has performed its services in keeping with applicable environmental consulting standards and appropriate standard agency procedures.

This report and other instruments of service are prepared for, and made available for the sole use of Danaher, and the contents thereof may not be used or relied upon by any other person without the express written consent and authorization of BBL.

2. Site Overview

The ETS facility is located at 23575 County Road 106 in the township of Osolo in Elkhart County, Indiana (see Figure 1). The general layout and activities of the ETS facility are discussed below. Additionally, selected photographs of the facility are provided in Appendix B and include:

Photo 1 - ETS property;
Photo 2 - West side of ETS building;
Photo 3 - Storage area, building #3;
Photo 4 - Finished product storage, building #2;
Photo 5 - Labeling and packaging area, building #3;
Photo 6 - Hazardous waste storage, building #2;
Photo 7 - City of Elkhart storage, building #3;
Photo 8 - Northern portion of ETS property;
Photo 9 - Adjoining property to west, voyager; and
Photo 10 - Adjoining property to east, native hardwoods.

2.1 Site Layout

The ETS facility is located on approximately 4.4 acres northeast of the City of Elkhart, Indiana. The property is comprised of three attached buildings (Buildings #1, #2, and #3), Figure 2. Building #1 is the original building constructed in 1985. Buildings #2 and #3 were added in 1989 and 1994, respectively. The combined buildings total approximately 40,000 square feet. The metal buildings with a concrete slab on grade foundation are located along the western side of the property and adjacent to County Road 106.

The facility is connected to a municipal water supply and uses an on-site 2-inch well located east of Building #1 for the water source for the fire protection sprinkler system. Prior to 1992, the facility was connected to a septic leaching system and process wastewaters discharged to two septic systems. These septic systems were located south and east of Buildings #1 and #2. Since 1992, sanitary and process wastewaters have been discharging to the City of Elkhart publicly-owned treatment works (POTW).

Two dumpsters were observed at the eastern side of the facility: one for general trash disposal and one recyclable paper materials. Manufacturing wastes generated at the facility are collected and stored on the first floor of Building #2 in an open warehouse area. Waste streams generated at the facility are described in Section 5.1.2.

Paved parking areas are located to the north and east of the three buildings and comprise most of the remaining property. The northernmost portion of the property is an open lawn area. A drainage swale conveys surface-water runoff eastward along the northern property boundary and then southward along a portion of the eastern property boundary.

The ETS facility is located within an area known as Northland Industrial Park. The ETS property is bounded to the north, east, and west by other manufacturing facilities. The property is bounded to the south by County Road 106. Residential properties are located directly south of County Road 106.

2.2 Site Activities

The primary activity conducted at the ETS facility is manufacturing of paper test strips. These test strips are chemically treated paper strips used for testing chemical presence and/or quantities for several applications. The test strips produced by the ETS facility are primarily used in the pool and spa industry, however, ETS produces a variety

of different test strips for several applications. In addition to manufacturing, the ETS facility houses laboratories for product research and development, and offices for administration and marketing.

3. Site Background/Operating History

3.1 General

The Elkhart County Assessor provided BBL with the following historical record of ownership for the current ETS property:

Owner	Date of Ownership
Environmental Test Systems, Inc.	1991 - 1999
G & S Properties	1986 - 1991
Ludwig Allan J. & David J. Miller	1986 - 1986
Delcorp, Inc.	1985 - 1986
Ludwig Allan J. & David J. Miller	1985 - 1985
Bennet, Steve R.	1983 - 1985
Ludwig, Allan J. & David J. Miller	1983
Dawn Realty	1983
Century Motor Coach	1983
Dygert, David L. & Phyllis B.	1973 - 1983
Baker, Ernest R. & Minola A.	1962 - 1973

ETS was formerly a division of Miles Laboratories, Inc. In 1985, Mr. Harry Stephenson purchased the division from Miles and relocated operations to the current County Road 106 property. According to ETS, Mr. Stephenson is currently retained as a consultant by ETS. The original ETS facility was constructed in 1985 on this property and consisted of one building (currently known as Building #1). Since originally constructed in 1985, Building #2 and Building #3 have been added to the original structure. ETS was purchased by Hach Company in April 1998, however, operations at the facility have generally remained unchanged under the new ownership (ETS, 1999). ETS continues to operate as a wholly-owned subsidiary of Hach Company.

Currently site operations include raw materials storage, research and development, manufacturing, packaging, finished product storage, quality assurance testing, administration, and marketing.

ETS manufactures over 200 products that are distributed worldwide. The majority of their products (approximately 60 percent) are sold to the pool and spa industry under the brand name AquaCheck™. These products consist of test strips used for testing chemical levels in pool and spa water. Approximately 25 percent of their products are used to test chloride levels in mortar. This product is sold under the name QuanTab™ and is sold mostly in Japan. The remainder of their products include test strips for testing chemical levels in soil, industrial water, and automotive fluids (ETS, 1999).

3.2 Aerial Photograph Interpretation

Aerial photographs of the ETS facility and surrounding area were obtained by BBL from the United States Department of Agriculture (USDA) Soil Conservation Service (SCS) and the Elkhart County Planning Department for the years 1938, 1957, 1965, 1987, and 1993. Aerial photographs were obtained by BBL from Environmental Risk Information and Imaging Services (ERIIS) for the years 1952, 1979, 1981, and 1992 (ERIIS, 1999). Presented below are descriptions of the ETS property and surrounding properties based on interpretations of the aerial photographs reviewed by BBL.

1938 (1" = 660')

- The ETS property appears to be undeveloped and used as agricultural land.
- Properties surrounding the ETS property to the north, south, east, and west are sparsely developed and appear to be used for agricultural and residential purposes. County Road 106 is present south of the ETS property.

March 29, 1952 (1" = 573')

- The ETS property remains undeveloped and used for agricultural land.
- The surrounding areas to the north, south, east, and west of the property continue to be sparsely developed with apparent residential/agricultural buildings. Also, approximately 400 feet south of the property and south of County Road 106 is a surface-water body. This surface-water body is approximately 600 feet wide in an east-west direction and 300 feet wide in a north-south direction.

1957 (1"= 660')

- The ETS property and surrounding properties to the north, east, and west continue to be sparsely developed and used for agricultural and residential purposes.
- Areas south of the ETS property and County Road 106 are newly developed as residential properties.

1965 (1" = 660')

- The ETS property and surrounding properties to the north, east, and west continue to be sparsely developed and used for agricultural and residential purposes.
- Residential properties are located south of the ETS property and County Road 106.

November 18, 1979 (1" = 660')

- The ETS property appears to be undeveloped; however, the surrounding areas to the north, east, and west have been developed as apparent commercial/industrial facilities, some with large structures.
- A large area of residential housing is shown south of the ETS property. It appears that the 600- by 300-foot surface-water body has been filled or drained to accommodate the residential housing complex.

May 2, 1981 (1" = 660')

- No obvious changes from the 1979 aerial photograph.

1987 (1" = 660')

- The ETS property has been developed with the construction of the original ETS facility (Building #1).
- Surrounding properties to the east, north, and west of the subject site are developed as industrial facilities. These properties were apparently developed as part of the Northland Industrial Park.
- A large area of residential housing is located south of the ETS facility and County Road 106.

April 5, 1992 (1" = 660')

- The aerial photograph shows the original ETS facility (Building #1).
- The surrounding areas to the north, east, and west remain developed as industrial facilities.
- A large area of residential housing remains south of the ETS property and County Road 106.

1993

- The ETS facility has been expanded to include the original structure (Building #1), and an adjoining addition (Building #2).
- Surrounding properties to the east, north, and west of the ETS property remain industrial facilities.
- A large area of residential housing remains south of the ETS facility and County Road 106.

May 2, 1981 (1" = 660')

- No obvious changes from the 1979 aerial photograph.

1987 (1" = 660')

- The ETS property has been developed with the construction of the original ETS facility (Building #1).
- Surrounding properties to the east, north, and west of the subject site are developed as industrial facilities. These properties were apparently developed as part of the Northland Industrial Park.
- A large area of residential housing is located south of the ETS facility and County Road 106.

April 5, 1992 (1" = 660')

- The aerial photograph shows the original ETS facility (Building #1).
- The surrounding areas to the north, east, and west remain developed as industrial facilities.
- A large area of residential housing remains south of the ETS property and County Road 106.

1993

- The ETS facility has been expanded to include the original structure (Building #1), and an adjoining addition (Building #2).
- Surrounding properties to the east, north, and west of the ETS property remain industrial facilities.
- A large area of residential housing remains south of the ETS facility and County Road 106.

4. Environmental Setting

Information presented in the USDA SCS document entitled "Soil Survey of Elkhart County, Indiana" (SCS, 1974) indicates that the ETS property is located in the Kamakee Outwash and Lacustrine Plain physiographic province. The SCS reports that Elkhart County has an average annual daily maximum temperature of 60°F, an average daily minimum temperature of 39°F, and receives an average annual rainfall of 34.4 inches. Overburden in this area is classified as the Atherton Formation. This formation consists of an undifferentiated glacially-derived outwash, composed primarily of sand and gravel (Indiana Department of Natural Resources [IDNR], 1989). Soils in this area consist of the Plainfield Series and the Brems Series. Both of these soil types are deep, coarse-textured soils that are formed in outwash plains and knolls. These soils are moderately to excessively well drained and are nearly level to moderately sloping. Groundwater is located approximately 5 to 10 feet below grade according to the SCS soil survey report.

Bedrock underlying the ETS property is composed of the Mississippian Ellsworth Shale Formation. This bedrock is located at depths ranging from 50 to 150 feet below grade and is approximately 300 feet thick (IDNR; 1970, 1987).

Based on a review of the United States Geological Survey (USGS) topographic map for the area (USGS, 1961), the ETS property and surrounding area is relatively flat, sloping gently southwest toward the St. Joseph River, which is approximately 1.3 miles south of the site. Surface elevations on the property range from approximately 770 to 775 feet above mean sea level. Based on the topography, shallow groundwater is expected to flow southwest toward the St. Joseph River.

A two-inch well was observed on the ETS property immediately east of Building #1, and is apparently used for the building's fire sprinkler system. An adjacent property east of the ETS site (currently used by Native Hardwoods) has a 2-inch well on site that is used for drinking water. Two wells were also observed on the property at 53471 Marina Drive, that is located east of the Native Hardwoods site. These wells consist of one 2-inch well used for drinking water and one 4-inch well used for the lawn irrigation system. No details about the construction or analytical test data were available for these wells.

BBL contacted the Elkhart County Water Department about the drinking water source for the municipal water supply. The agency indicated that the municipal water was drawn from the St. Joseph River and was conditioned before delivery to residents and certain industries (including the ETS facility) in the county (Elkhart County Water Department, 1999b).

5. Site Walkover

5.1 Site Observations

A site walkover was conducted by two BBL staff members on April 14, 1999, to observe current activities and conditions at the site. The site walkover included a tour of the facility with Mr. James Demarest, Group Vice President of ETS, and a walkover of the surrounding exterior of the ETS property.

Exterior areas consisted of two concrete loading docks, parking areas, and open lawn areas. Key areas observed inside the facility during the tour are shown on Figures 3 and 4, and include:

- Office areas;
- Storage areas;
- Laboratories;
- Chemical mixing and process rooms; and
- Product assembly and packaging areas.

In general, the facility consists of three attached metal buildings constructed on concrete slab foundations. Portions of Buildings #1 and #2 consist of a first and second floor. Building #3 has a first floor only. The buildings are heated with natural gas-fueled furnaces and are cooled with roof-mounted heating, ventilation, air conditioning (HVAC) units.

The southern portion of the site is composed of a lawn area and an access driveway to County Road 106. County Road 106 borders the site to the south, and further south is an area developed with residential housing. The eastern portion of the site consists of parking areas and a lawn area. Two dumpsters were observed on the east side of the parking lot. One dumpster is used for general trash and one is used for recyclable paper materials. Both of the containers are serviced by Himco, Inc. A two-inch well was also observed immediately east of Building #1, which is used for the building's fire sprinkler system, and a manhole was also observed on the east side of the building. The manhole was installed to allow the City of Elkhart to sample effluent wastewater from ETS prior to entering the publicly-owned sanitary sewer system. Further east is the property currently used by Native Hardwoods and additional industrial properties.

The northern portion of the site consists of a parking area and a lawn area. A drainage swale is located near the northern boundary of the site and more industrial properties are further to the north. At the time of the site visit, no water was observed in the portion of the swale that is located along the northern property boundary. Shallow water was noted near the northeast corner of the site, where this drainage swale joins a north-south swale. No sheens were observed. The western portion of the site consists of a lawn area. Along the western property boundary, BBL also observed two power transmission poles with three transformers on each pole that were marked "non-PCB." An adjoining property to the west is occupied by Voyager, Inc., and additional industrial properties are located further to the west.

The interior conditions of key areas observed in each building are described below.

5.1.1 Building #1

The following key areas comprise Building #1:

- First Floor

- Office area and conference room;
- Former mix room;

- Dryer #1;
- Foiler room (used for packaging test strips); and
- Raw material storage area.

• Second Floor

- Office area;
- Quality assurance (QA) sample storage area; and
- Mechanical room.

Presented below is a description of each of the key areas observed in Building #1.

Office Areas and Conference Room

The office areas and conference room in Building #1 are located in the westernmost portion of the building on both the first and second floors. The office areas consist of typical cubicle office space with some permanent offices along the exterior walls of the building. Both the office areas and conference room were carpeted, neat, and clean at the time of the site visit.

Former Mix Room

The former mix room is located in Building #1 on the first floor adjacent to the conference room. This room was formerly used to prepare chemical reagents used to produce test strips according to Mr. Demarest. Currently this room is used for miscellaneous storage. The former mix room was neat and clean at the time of the site visit. The mix room that is currently used at the facility is located in Building #3. No sumps or drains were observed in this room at the time of the site visit.

Dryer #1

Dryer #1 is located on the first floor of Building #1 adjacent to the former mix room. Dryer #1 is the smaller of two dryer units at the facility used to dry chemical reagents after they have been applied to paper. Paper is dipped into a pan of chemical reagent and then run through the dryer unit. A small closet is located adjacent to Dryer #1. Chemical reagent, which varies based on production needs, is stored in a plastic container in the closet and is manually pumped to the pan of the dryer when necessary. Rolls of paper are run through the dryer in batches. Any chemical reagent remaining in the pan following completion of a batch is either pumped back into the container in the closet or containerized and stored for off-site disposal according to Mr. Demarest. Dryer #1 is manned by an ETS employee when in operation. During the site visit, the room containing Dryer #1 appeared neat and well kept, and no noticeable odors were noted in the vicinity of Dryer #1. BBL personnel did not observe any drains or sumps in the area.

The dryer unit generates emissions containing volatile organic compounds (VOCs) that are released through an air stack directly to the outside of the building. These emissions are currently regulated by IDEM. ETS has provided BBL with a copy of the last four air monitoring quarterly reports that have been submitted to IDEM by ETS for the dryer emissions (a copy is provided as Appendix C). According to ETS personnel, the emissions generated by each of the dryer units at the facility are well below the IDEM permitted limits (ETS, 1999).

Foiler Room

The foiler room is located on the first floor of Building #1 adjacent to Dryer #1. The foiler room contains equipment used to package test strips individually in foil. Scrap foil generated during the process is collected and disposed of as a non-hazardous material. This area was neat, clean, and well kept during the site visit.

Raw Material Storage Area

A portion of Building #1 is an open, one-story warehouse area used to store raw materials used in the production process (e.g., rolls of paper, polystyrene, empty plastic bottles). These materials are stored on racks along the exterior walls of the warehouse area (Appendix B, Photo 3). Forklifts are used to retrieve and transport the raw materials, making this a high traffic area. At the time of the site visit, this area was clean and well organized.

QA Sample Storage Area

This area is located on the second floor of Building #1 and is used to store samples of finished product for future QA tests and potential product liability issues. The samples are stored in cardboard boxes and tracked by lot number. This area was clean and well organized during the site visit.

Mechanical Room

This area is located on the second floor of Building #1, adjacent to the QA sample storage area. The mechanical room contains equipment used to condition air that is used in Dryer #1. Outside air is allowed into the mechanical room through an open vent in the exterior wall of the building. The air is then sent through equipment to remove moisture, and then to Dryer #1 located in the room directly beneath the mechanical room. During the site visit, the mechanical room was clean, and no noticeable odors were noted.

5.1.2 Building #2

The following key areas comprise Building #2:

- First Floor

- Light box room;
- Quantab room;
- Hazardous waste storage area;
- Raw material and finished product storage area;
- Two wet labs; and
- Instrumentation lab.

- Second Floor

- Miscellaneous storage areas;
- Walk-in cooler used for chemical storage; and
- Office area.

Presented below is a description of each of the key areas observed in Building #2.

Light Box Room

The light box room is located on the first floor of Building #2 and houses light boxes that simulate different types of light (e.g., sunlight, white fluorescent light). The light boxes are used to test the precision of the color-change test strips under certain light conditions. Samples of finished product test strips are stored in heated containers also located in the light box room. The heated containers are used to test the stability of the test strips under increased temperatures. The light box room was neat and clean at the time of the site visit.

Quantab™ Room

The Quantab™ room is located on the first floor of Building #2, adjacent to the light room. Quantab™ is a specific type of test product produced at ETS that involves the lamination of chemically treated paper test strips. The Quantab™ room houses the equipment used to assemble and laminate the Quantab™ test strips. Wastes generated in the Quantab™ room include scrap laminate and chemically treated paper. The scrap paper is stored in a lined waste basket labeled "hazardous waste" due to the use of cyanide and arsenic in the Quantab™ treating process (ETS, 1999). The Quantab™ room was neat and clean at the time of the site visit.

Hazardous Waste Storage Area

According to ETS personnel, waste that is generated at the facility is collected and stored on the first floor of Building #2, in an open warehouse area. During the site visit, BBL observed the presence of closed 55-gallon steel drums in this warehouse area (Appendix B, Photo 6). Three drums in this area were labeled as "hazardous waste" and two drums were labeled as "non-regulated waste." Each of these drums was placed on wooden skids above the concrete floor. Four additional drums were labeled as "flammable" and were placed in spill containment vessels (plastic tubs). Also observed in this area were open drums and cardboard boxes containing various small containers of chemicals. ETS indicated that these chemicals were identified during general housekeeping practices as out-of-date (expired) chemicals and were being accumulated to complete a lab pack that would be shipped off-site for disposal (ETS, 1999). At the time of the site visit, the hazardous waste storage area was observed to be a very high traffic area. This area appeared to be neat and clean during the site visit. No sumps, floor drains, or signs of staining or leaks were observed.

According to ETS personnel, there are four general waste streams generated by the manufacturing process at the ETS facility. These waste streams include:

- Hazardous solids consisting primarily of scraps of paper treated with reagents such as chromium, silver, and arsenic;
- Hazardous liquids consisting of leftover chemical reagents such as chromium, silver, and arsenic;
- Flammable liquids consisting of leftover chemical reagents such as organic solvents (i.e., primarily reagent alcohol, which contains 90 percent ethyl alcohol, five percent isopropyl alcohol, and five percent methanol; and small quantities of acetone, ethyl acetate, isopropyl alcohol, methyl ethyl ketone, and toluene); and
- Non-regulated waste consisting of liquid wastes that contain concentrations of chemicals that are above the City of Elkhart's sewer discharge limits but are not regulated by IDEM or the USEPA.

In addition to the above waste streams, lab packs consisting of various out-of-date chemicals in small quantities are occasionally shipped off-site for disposal (ETS, 1999). ETS has provided BBL with copies of the signed hazardous

waste manifests documenting the most recent (February 2, 1999) off-site shipments of hazardous waste from the ETS facility. Copies of these manifests are provided as Appendix D.

ETS personnel indicated that some liquid wastes generated at the facility are disposed of through the sink drains that are connected to the City of Elkhart sewers. According to ETS, these wastes are within the City of Elkhart sewage disposal limits. ETS has provided BBL with a copy of a letter from the City of Elkhart Sewer Use Pretreatment/Enforcement Director (Appendix E), which states that the ETS facility was not required to obtain an industrial wastewater discharge permit. ETS has also provided BBL with a guidance list that is used by ETS employees to determine the appropriate disposal of chemical wastes. A copy of this guidance list is also provided in Appendix F.

Raw Material and Finished Product Storage Area

A small portion of the open warehouse area in Building #2 is used to store raw materials (e.g., large rolls of paper and empty plastic bottles) and finished products (Appendix B, Photo 4). These materials were stored on racks and transported via forklifts, making this a high traffic area. At the time of the site visit, this area appeared very clean and well organized.

Wet Labs #1 and #2

Two wet laboratories are located on the first floor of Building #2. These laboratories are used by ETS for research and development. The laboratories consist of lab tables, various lab equipment, and small quantities of chemicals stored on shelves and in cabinets. The wet labs appeared to be clean, neat, and well organized at the time of the site visit.

Instrumentation Lab

An instrumentation laboratory is located on the first floor of Building #2, adjacent to wet lab #2. The instrumentation lab houses various small chemical testing equipment and computer systems used in the research and development of new products. The lab was clean and neat at the time of the site visit.

Miscellaneous Storage Areas

Two miscellaneous storage areas are located on the second floor of Building #2. These areas are used to store materials, such as new empty 55-gallon drums, empty cardboard containers, miscellaneous computer and office equipment, and record files. These areas appeared clean and neat during the site visit.

Walk-In Cooler

A metal walk-in cooler (approximately 5 feet wide by 10 feet long) is located on the second floor of Building #2, adjacent to one of the miscellaneous storage areas. The cooler is used to store small quantities (i.e., less than 5 gallons) of chemicals used at the facility that require refrigeration. The interior of the cooler was neat, clean, and well organized at the time of the site visit.

Office Area

The southeastern corner of the second floor of Building #2 is comprised of an office area. The office area consists of typical cubicle office space with some permanent offices along the exterior walls of the building. The office area was carpeted, neat, and clean at the time of the site visit.

5.1.3 Building #3

The following key areas comprise Building #3:

- Mix room;
- Dryer #2;
- Slitting and assembly room;
- Fill and cap room;
- Labeling and packaging area;
- Finished product storage area; and
- Office area.

Presented below is a description of each of the key areas observed in Building #3.

Mix Room

The mix room is located along the northern exterior wall of Building #3. The mix room is used to prepare chemical reagents that are applied to paper in the production of test strips. The mix room contains various chemicals (e.g., reagent alcohol, citric acid, hydrochloric acid) in small quantities (i.e., less than 5 gallons) stored on shelves and in cabinets. A partial list of these chemicals provided by ETS is included in Appendix G.

The floor of the mix room is concrete and there is one collection sump in the concrete floor. The collection sump is approximately 4 feet long by one foot wide by 6 inches deep and is covered with a steel grid. According to ETS personnel, the sump is for the collection of potentially-spilled chemicals and has no outlet (ETS, 1999). The sump appeared clean and dry at the time of the site visit. No spills were reported by ETS (ETS, 1999).

Dryer #2

Dryer # 2 is the largest of the two dryer units at the facility and is located adjacent to the mix room in Building #3. Similar to Dryer #1, chemical reagents are applied to paper that is then run through the dryer unit. According to ETS personnel, Dryer #2 is the newer, more efficient dryer unit at the facility capable of treating larger quantities of paper in a much shorter time period than Dryer #1 (ETS, 1999). The room housing Dryer #2 was neat and clean at the time of the site visit.

Similar to Dryer #1, emissions from Dryer #2 containing VOCs are released to the atmosphere via an air stack located on the outside of the building. As previously mentioned, dryer emissions from the ETS facility are currently regulated by IDEM. Appendix C provides a copy of the last four quarterly air monitoring reports submitted to IDEM by ETS.

Slitting and Assembly Room

The slitting and assembly room is located adjacent to Dryer #2 in Building #3. In the slitting and assembly room, large rolls (approximately 24 inches wide) of chemically treated paper are slit into smaller-width rolls of paper (approximately 0.20 inches wide). The smaller-width chemically treated paper is then adhered to 5-inch by 10-inch

cards. Each card includes several strips of paper treated with different chemical reagents. Each of the machines used for slitting and card assembly is operated by an ETS employee. Wastes generated in the slitting and assembly room included scraps of chemically treated paper that were stored in lined waste baskets labeled "waste." The slitting and assembly room was neat and clean at the time of the site visit.

Fill and Cap Room

The fill and cap room is located adjacent to the slitting and assembly room in Building #3. In the fill and cap room, the 5-inch by 10-inch cards assembled in the slitting and assembly room are placed into a machine and cut into 50 individual test strips. The test strips are then automatically placed into plastic bottles and capped. ETS employees in the fill and cap room remove filled bottles from a conveyor and place them into cardboard boxes for labeling and packaging. The fill and cap room was neat and clean at the time of the site visit.

Labeling and Packaging Area

Labeling and packaging is performed in a central open area of Building #3 (Appendix B, Photo 5). The labeling and packaging area contains machines that apply labels to the filled bottles and then package the bottles using clear plastic that is blistered onto a cardboard backing. Several ETS employees operate the labeling and packaging machines located in this area and transfer the finished product into cardboard boxes for storage. The labeling and packaging area was neat and clean at the time of the site visit.

Finished Product Storage Area

A portion of the open area in Building #3 is used to store finished product (Appendix B, Photo 3). Packaged test strips are stored in cardboard boxes on wooden skids in this area. This area appeared clean and well organized at the time of the site visit.

Office Area

An office area is located in Building #3 along the eastern exterior wall of the building. These offices consist of painted concrete floors and dividing walls that are half wood and half glass. These offices were neat, clean, and well organized at the time of the site visit.

5.1.4 AST and UST Systems

No aboveground storage tanks (ASTs) or underground storage tanks (USTs) were observed by BBL during the site visit. According to ETS personnel, an underground concrete containment tank was removed from the facility in 1997. The tank was located along the west side of Building #3, and was to contain any potential liquid spills generated by Dryer #2. A catch basin located beneath Dryer #2 was designed to convey the liquid to the tank. According to ETS personnel, the catch basin has been sealed and the tank had no outlet and was not used prior to removal (ETS, 1999). A copy of correspondence between ETS's engineering firm (Dynamic Engineering, Inc.) and the IDEM regarding the removal of the concrete containment tank was provided by ETS to BBL. A copy of this correspondence is provided as Appendix H.

5.2 Transformers

ETS personnel were not aware of any polychlorinated biphenyl- (PCB-) containing transformers currently or formerly present at the facility. During the site visit, BBL did not observe any labeled PCB-containing transformers at the

facility. BBL did observe two electrical poles located on the ETS property, along the western property boundary (Appendix B, Photo 2). Each pole supported three transformers that were each labeled "non-PCB."

5.3 Area Reconnaissance

An area reconnaissance was performed by BBL personnel on April 14, 1999. The reconnaissance included observing surrounding businesses and properties to assess the potential for environmental impacts. The results of the reconnaissance are discussed below.

- The properties located north, east, and west of the ETS facility are manufacturing facilities. ASV Plastics and Norcold, Inc., are located to the north (Appendix B, Photo 8). Native Hardwoods is leasing a portion of the building located east of the ETS facility to produce countertops and other components for recreational vehicles (Appendix B, Photo 10). Voyager, a company that converts cargo vans into recreational conversion vans, is located to the west of the ETS facility (Appendix B, Photo 9).

- County Road 106 is located south of the ETS facility. Residential properties are located directly south of County Road 106.

At the request of Danaher and with the permission of the property owner (Ludwig Investments, Inc.), BBL conducted a preliminary site walkover of the two facilities located directly east of the ETS facility. According to James Demarest, ETS is in the process of purchasing these properties to facilitate expansion of their operations. The results of this additional site walkover are discussed below.

- The property located directly east of the ETS facility consists of one large building that is divided into two sections. As stated above, the southern portion of this building is currently being leased by Native Hardwoods and is used to produce tabletops for recreational vehicles. The interior of the building is primarily open, with the exception of a few smaller rooms in the most southern portion of the building. Current operations in this portion of the building generate a large quantity of particulates dust that have coated the interior surfaces. The northern portion of the building is currently vacant. This area is also primarily open with the exception of some smaller rooms located along the eastern exterior wall.

- The second property to be purchased by ETS is located adjacent to the facility described above, two properties east of the current ETS facility. The second property also consists of one building, which is primarily open, with the exception of some smaller rooms in the southernmost portion of the building. The building is currently being leased by the Day's Corporation and is being used to store empty glass bottles in cardboard boxes.

- Each of the above buildings appear to be metal buildings with concrete slab on grade foundations. A drainage swale conveys surface-water runoff in an eastward direction along the northern property boundary of each of these facilities. BBL observed the presence of a vent pipe/access point located directly south of the building currently being leased by Day's Corporation. This was subsequently found to be an access point for a well used for the property's lawn irrigation system.

6. Environmental/Regulatory Agency Inquiries

6.1 VISTA Database Search

A VISTA database search of federal and state listings was performed at BBL's request in April 1999 (VISTA, 1999). The search was conducted for listings of hazardous waste compliance for the following agency databases: Superfund National Priority List (NPL); Resource Conservation and Recovery Act (RCRA) Corrective Actions (CORRACTS); state equivalent priority list (SPL); state equivalent Comprehensive Environmental Response, Compensation, and Liability Information Service (CERCLIS) list (SCL); sites currently or formerly under review by the USEPA (CERCLIS/NFRAP); RCRA permitted treatment, storage, and disposal facilities (TSD); leaking underground storage tanks (LUST); permitted solid waste landfills, incinerators, or transfer stations (SWLF); registered underground storage tanks (UST); Emergency Response Notification System of spills (ERNS); RCRA registered large quantity generators of hazardous waste (LG GEN); RCRA registered small quantity generators of hazardous waste (SM GEN), and the state spills lists (SPILLS). Each of the databases was searched within a one-mile radius of the ETS property.

Based on the results of the database search, the ETS facility was listed on only one of the above lists, the SM GEN. The USEPA identifies the site as a small quantity hazardous waste generator, meaning the facility generates between 100 and 1,000 kilograms (kg) per month of non-acutely hazardous waste. This appears to be consistent with the information provided by ETS during the site visit and with BBL's observations during the site visit.

Several sites located within one mile of the ETS facility were listed in the various VISTA databases, including the CLP Trucking Site, the HB Fuller Site, the General Fiberglass Site, the Fabwel Plastics Site, and the Kimberly, Inc. Site. The listings for each of these sites are briefly discussed below.

- The CLP Trucking Site, which is located approximately 0.24 miles northeast of the ETS property, is included on the SPILLS list. According to the information provided by VISTA, a spill of approximately 5,000 gallons of diesel fuel was reported at the site in 1994. The IDEM reported that no water bodies were affected by the spill and lists the remedial status as "partial clean-up." The CLP Trucking Site is located in an inferred hydraulically upgradient direction from the ETS facility, and the ETS property could potentially have been impacted by the spill.

- The HB Fuller Site, which is located on County Road 6 approximately 0.62 miles northwest of the site, is listed as a state equivalent CERCLIS site. This site was entered into the IDEM Voluntary Remediation Program in 1994 as a result of VOCs, semi-volatile organic compounds (SVOCs), and metals that were detected in soil and groundwater during a Phase I ESA performed in 1994. Phase II sampling at the site also detected VOCs and SVOCs in soil and groundwater samples, but these levels did not exceed the non-residential cleanup criteria for the State of Indiana. As a result of these findings, the IDEM issued a Certificate of Completion for the project on February 11, 1998. The facility also qualifies for a Covenant-Not-To-Sue, which will be issued by the Governor of the State of Indiana.

- The General Fiberglass Site, which is located approximately 0.25 miles northwest of the subject site, is listed on the SPILLS list. VISTA reports that 11,000 gallons of fiberglass resin was spilled at the facility in 1991. The IDEM reports that no water bodies were affected by the spill and the spill file has been closed following remedial action.

- The Fabwel Plastics Site, which is located approximately 0.32 miles northwest of the subject site, is listed on the SPILLS list. A chemical fire occurred at the facility on March 14, 1998, and retention ponds at the site were impacted. The IDEM lists the remediation status for the site as "partial clean-up." Possible impact on the ETS Site is considered to be unlikely because the Fabwel Site appears to be hydraulically crossgradient.

- The Kimberly Inc. Site, which is located approximately 0.69 miles north of the subject site, is listed on the SPILLS list. VISTA reports that 2,500 gallons of diesel fuel was spilled at the site on July 21, 1996. The spill was contained in an on-site ditch and the IDEM reports the remedial status as "cleaned-up." This site is also listed as a small quantity hazardous waste generator.

6.2 EDR Database Search

BBL also reviewed a database search for the ETS facility performed by Environmental Data Resources, Inc. (EDR) on February 13, 1998 (copy provided as Appendix I). This report lists the ETS facility as a small quantity generator of hazardous waste under RCRA and indicated that the facility is monitored or permitted for air emissions under the Clean Air Act.

Two LUST sites were identified by EDR on the LUST list within a one-half mile radius of the ETS facility: the Elkhart Steel Service Inc. Site and the Century Motor Coach Site. The Elkhart Steel Service, Inc. Site is located approximately 0.22 miles east of the ETS facility. The IDEM reported that a UST was leaking petroleum products and that the registered gasoline USTs at this location have been removed. Potential impacts from this leak on the ETS property are considered to be unlikely, because the Elkhart Steel Service Site is considered hydraulically crossgradient to the ETS property. The Century Motor Coach Site is located between 0.25 and 0.50 miles northwest of the ETS facility. The IDEM reported that a UST was leaking petroleum products and that the UST was still listed as active. Impact from this leak is also considered to be unlikely because of its inferred hydraulically crossgradient direction to the ETS facility.

6.3 Other Inquiries

BBL contacted the Township of Osolo Fire Department to obtain information regarding responses by the department to the area in the vicinity of the ETS facility, and to request files pertaining to the ETS facility. Mr. Randy Stone, Hazardous Materials Coordinator of the Osolo Fire Department, stated that the fire department had not responded to any spills at the ETS facility, and that the amount of chemicals stored at the site were not subject to reporting under SARA Title III. Mr. Stone also said that a chemical fire occurred on March 14, 1998, at the Fabwel Plastics plant and that this fire was investigated by IDEM and the Elkhart County Department of Health.

BBL conducted a file review at the Elkhart County Department of Health in Goshen, Indiana, to obtain information regarding the above-mentioned chemical fire. According to this information, water that was used to put out the fire collected into an on-site retention pond. VOCs and SVOCs were detected in this water, which completely dissipated within a few days of the fire through infiltration and evaporation. Soil samples collected in the retention pond area revealed that VOCs and SVOCs were not present above IDEM Cleanup Goals for non-residential properties. Groundwater was also sampled at the site and on adjoining properties. Groundwater samples collected at the site revealed benzene concentrations ranging from 3.7 to 21 parts per billion (ppb), compared to the USEPA Maximum Contaminant Level (MCL) of 5 ppb. A portion of the report presenting the results of the environmental study is provided as Appendix J. Remediation of the groundwater was not recommended, because it was determined that natural attenuation would reduce the benzene to below 5 ppb before it migrated off-site. Groundwater samples collected at adjoining properties indicated that VOCs and SVOCs were not detected.

The Elkhart County Health Department also provided information regarding two septic systems that were previously used at the ETS facility until 1992. These systems were located on the south and east sides of Buildings #1 and #2. Liquid from each of the septic tanks was sampled in 1992 and the results indicate that the tank on the east side of Building #2 contained toluene at a concentration of 54 ppb, and the tank located on the south side of Building #1 contained 1,1- dichloroethene and 1,1,1-trichloroethane at concentrations of 1,940 ppb and 2,770 ppb, respectively. A copy of these analytical results are provided as Appendix K. ETS has indicated that these tanks were emptied,

crushed, and abandoned in place in 1992. At that time the ETS facility was connected to the City of Elkhart sanitary sewer system.

The health department files also indicate that ETS received a notice of violation letter from IDEM on July 15, 1997, which indicated that they had exceeded their total VOC air emission limit of 14.9 pounds per day. The IDEM then performed an on-site visit of the ETS facility on August 19, 1997, and concluded that there were no violations under their emission permits. A copy of the correspondence regarding the supposed violation and subsequent site visit is provided as Appendix L.

As part of this Phase I ESA, BBL submitted FOIA requests to the USEPA, the IDEM Office of Emergency Response, the IDEM Office of Water Management, and the IDEM Office of Solid and Hazardous Waste. To date, BBL has received the following responses from the IDEM:

- Mr. Steven Vaughn of the IDEM Office of Water Management did not have any files related to the subject site and did not have any records of groundwater contamination from wells within one-half mile of the site.
- Ms. Glenda Oaks of the IDEM Office of Solid and Hazardous Waste did not have any records of violations associated with ETS.
- Mr. Gary Yakimiki of the IDEM Office of Emergency Response did not have any records pertaining to the ETS property.
- Mr. Damon Ridley of the IDEM Voluntary Remediation Program Office provided information related to the H.B. Fuller Site.

7. Summary and Recommendations

7.1 Introduction

The purpose of this Phase I ESA is to identify readily apparent existing or potential conditions at the ETS facility located in Elkhart, Indiana, that may pose a potential environmental liability or restriction to land use.

The following tasks were performed to complete the Phase I ESA:

- A records review of ETS facility files and IDEM files;
- A VISTA database search;
- A property walk over and area reconnaissance; and
- Interviews with key ETS personel.

7.2 Summary

The following summarizes the key findings of the ETS (Elkhart, Indiana) Phase I ESA:

- Groundwater is located approximately 5 to 10 feet below grade (SCS, 1974). Based on topography, shallow groundwater flow in the vicinity of the site is likely southwest toward the St. Joseph River.
- Overburden in the vicinity of the site consists of glacial outwash, composed primarily of sand and gravel. Bedrock underlying the ETS property is the Ellsworth Shale Formation, which is located at depths ranging from 50 to 150 feet below grade and is approximately 300 feet thick.
- There are two dryer units at the facility, where chemical reagents are applied to paper that is then run through the dryer unit. The dryer units generate VOC emissions that are released through an air stack directly to the outside of the building. These emissions are currently regulated by IDEM. According to ETS personnel, the emissions generated by each of the dryer units at the facility are well below the IDEM permitted limits.
- No ASTs or USTs were observed by BBL during the site visit. According to ETS personnel, an underground concrete containment tank associated with Dryer #2 was removed from the facility in 1997. According to ETS personnel, the tank had no outlet and was not used prior to removal.
- Two septic systems were used at the ETS facility until 1992. Liquid from each of the septic tanks was sampled in 1992 and the results indicate that the tank on the east side of Building #2 contained toluene at a concentration of 54 ppb, and the tank located on the south side of Building #1 contained 1,1- dichloroethene and 1,1,1-trichloroethane at concentrations of 1,940 ppb and 2,770 ppb, respectively. ETS has indicated that these tanks were emptied, crushed, and abandoned in place in 1992. At that time the ETS facility was connected to the City of Elkhart sanitary sewer system.
- Based on the results of the VISTA database search, the ETS facility was listed in only one of the databases searched, SM GEN, which identifies the site as a small quantity hazardous waste generator. The ETS facility manufactures environmental test strips for several applications. Various chemicals including arsenic, chromium, silver, and organic solvents are associated with manufacturing these chemically treated paper strips.
- Waste that is generated at the facility is collected and stored on the first floor of Building #2, in an open warehouse area. At the time of the site visit, BBL observed the following sealed 55-gallon steel drums in this warehouse area:

three drums labeled as "hazardous waste," two drums labeled as "non-regulated waste," four drums labeled as "flammable," and various cardboard boxes containing various small containers of chemicals (lab packs). This area appeared to be neat and clean during the site visit. No signs of staining or leaks were observed. Since this area appears to be a high traffic area and no secondary containment for the drums labeled as "hazardous waste" was observed, a separate storage area or building should be considered.

7.3 Recommendations

Based on the results of the Phase I ESA, BBL recommends the following Phase II ESA sample collection and analysis program for the ETS property.

Areas of Interest	Estimated Number of Sample Locations	Media of Interest/ Type of Sample	Recommended Analyses	Rationale
Former Septic System Tanks (crushed and left in place)	Install up to two temporary wells to five feet below the water table (approximately 10' below ground surface [bgs]) in the immediate vicinity of the two septic system tanks.	Up to two soil samples (one soil sample from a depth near the bottom of each tank); up to two groundwater samples (one groundwater sample from each temporary well location), if encountered.	Target Compound List (TCL) VOCs, TCL SVOCs, Target Analyte List (TAL) inorganics.	Assess possible subsurface effect of the former septic tanks.
Former Septic System Leach Fields (left in place)	Install up to four temporary wells to five feet below the water table (approx. 10' bgs within the two leach fields).	Up to four soil samples (one unsaturated soil sample from a depth at or below the depth of the leach field pipes); up to four groundwater samples (if encountered) from the leach fields.	TCL VOCs, TCL SVOCs, TAL inorganics	Assess possible subsurface effect of the former leach fields.

As indicated above, soil and groundwater samples will be collected and analyzed for TCL VOCs, TCL SVOCs, and TAL inorganics from predetermined locations. The above table will be used as a guide to the potential number and distribution of samples to be collected during the assessment. Based on BBL staff's observations during the investigation, the number and/or distribution of samples to be collected may be modified to optimize the effectiveness of the program.

8. References

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Figures

SEYFARTH SHAW LLP
ATTORNEYS

Attachment C

Phase II Environmental Site Assessment
August, 1999

REPORT

Phase II Environmental Site Assessment

Environmental Test Systems, Inc. Elkhart, Indiana

Danaher Corporation
Washington, D.C.

August 1999

ENVIRONMENTAL TEST SYSTEMS, ELKHART, IN (PHASE I & II)
012850-000122
HACH CORPORATION
PINS 0010
PKT - 0001

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

TECHNICAL REPORT

Phase II Environmental Site Assessment

Environmental Test Systems, Inc. Elkhart, Indiana

Danaher Corporation
Washington, D.C.

August 1999

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Table of Contents

Figures

Appendices

Executive Summary

The purpose of this Phase II Environmental Site Assessment (ESA) is to provide an evaluation of the soil and groundwater quality at the areas of interest identified in the Phase I ESA (BBL, 1999b) for the Environmental Test Systems, Inc. (ETS) property located at 23575 County Road 106 in Elkhart, Indiana.

Based on the results of the Phase I ESA, which reviewed in part, pertinent historical and current operations, an assessment of the soil and groundwater characteristics at select locations was recommended. The following locations at ETS were selected:

- The former septic system tank and leach field located on the east side of the facility; and
- The former septic system tank and leach field located south of the facility.

The following tasks were performed as part of the Phase II ESA:

- Advanced soil borings;
- Installed temporary monitoring wells; and
- Collected soil and groundwater samples.

Field activities were completed between April 26 and 28, 1999, in accordance with the scope of work for the Phase II ESA outlined in a letter dated April 26, 1999 to Mr. James Ditkoff, Vice President of Danaher Corporation (BBL, 1999a).

To collect site-specific physical and chemical characterization information, six borings (TW-1 through TW-6) were installed at the ETS Property. Three soil borings (TW-1 through TW-3) were installed in the location of the southern former septic system, and three soil borings (TW-4 through TW-6) were installed in the location of the eastern former septic system. The six soil borings were advanced to a depth of 10 feet below ground surface (bgs). One sample per boring (total of six) were submitted to the laboratory for analysis. Temporary monitoring well points were subsequently installed at each boring location to collect groundwater quality data in these locations.

Results of the Phase II ESA activities indicate the following geologic and hydrogeologic conditions at the property:

- The property is generally underlain by 10 feet of moderately loose sand deposits with varying amounts of silt and gravel. Based on regional information, the thickness of the overburden typically varies from 50 to 150 feet.
- Groundwater was observed at approximately 5 to 6 feet bgs at both former septic system locations.
- Based on topography and surface-water drainage patterns, shallow groundwater at the ETS Property likely flows south-southwest towards the St. Joseph River.

Based on the information collected in the Phase II ESA for the ETS Property the following conclusions can be drawn:

- Two volatile organic compounds (VOCs), acetone and toluene, were detected in soil samples collected from the ETS Property. The acetone detections are believed to be due to laboratory contamination since acetone was also detected in the associated laboratory blank sample at similar concentrations. Acetone and toluene were detected in one or more soil sample analyzed, at concentrations of 22 micrograms per kilograms (μg/kg) and 9 μg/kg, respectively, which are below the Tier 1 Soil Closure Levels for acetone and toluene, as provided in the Draft Technical Resource Guidance Document prepared by the Indiana Department of Environmental Management (IDEM) (IDEM, 1999).

- Four semi-volatile organic compounds (SVOCs), diethylphthalate, di-n-butylphthalate, bis(2-ethylhexyl) phthalate, and di-n-octylphthalate, were detected in soil samples collected from the ETS Property. All of these SVOCs were also detected in the associated laboratory blank sample, therefore the compounds are believed to be indicative of laboratory contamination.

- Metals were detected in soil at concentrations within the reported background range for the Eastern United States (United States Geological Survey [USGS], 1984), and below their respective Draft Tier 1 Soil Closure Levels (IDEM, 1999).

- The VOCs acetone, methylene chloride, and toluene were detected at low part per billion concentrations in groundwater samples collected from one or more temporary well. The acetone and methylene chloride detections are indicative of laboratory contamination since both compounds were also detected in the associated laboratory blank sample at similar concentrations. Toluene was detected in groundwater samples collected from TW-1 and TW-2, at concentrations below the Draft Tier 1 Groundwater Closure Level of 1,000 micrograms per liter (μg/L) (IDEM, 1999), and the United States Environmental Protection Agency (USEPA) Maximum Contaminant Level (MCL) of 1,000 μg/L (USEPA, 1996).

- Eleven SVOC compounds were detected in groundwater samples collected from the site. Five of these compounds are believed to be due to laboratory contamination since these five compounds, bis(2-ethylhexyl)phthalate, butylbenzylphthalate, diethylphthalate, di-n-butylphthalate, and di-n-octylphthalate, were also detected in the associated laboratory blank at similar concentrations. The remaining six compounds, including 2-methylnaphthalene, benzoic acid, isophorone, naphthalene, phenanthrene, and phenol, were reported at concentrations below their respective Draft Tier 1 Groundwater Closure Levels (IDEM, 1999), (these compounds are not listed in the USEPA MCLs).

- The metals aluminum, iron, and manganese were detected in groundwater samples collected from all six temporary wells at concentrations above the USEPA Secondary Drinking Water Standards (USEPA, 1996). The metals arsenic, cadmium, chromium, lead, and nickel were also detected in the groundwater sample collected from TW-3 at concentrations slightly above the MCLs and the Draft Tier 1 Groundwater Closure Levels (IDEM, 1999). Based on our current understanding of chemical use at the ETS Facility, none of these metals are believed to have been used by the facility, with the exception of arsenic and chromium.

While VOCs, SVOCs, and metals were detected in soil and groundwater samples collected from the ETS Property, the majority of the detections were either below the USEPA or Draft IDEM criteria, or within the regional range for the Eastern United States background metal concentrations. Given the limited sampling data and the focus towards locations with a higher potential for past releases, constituents that were above these criteria/concentrations appear to be localized.

The potential impact, if any, from these areas is assumed to be minimal for the following reasons:

- The contaminant levels are relatively low, even near the assumed source(s); and
- The properties are industrial in nature.

1. Objectives

1.1 Purpose

The purpose of this Phase II Environmental Site Assessment (ESA) is to evaluate the soil and groundwater quality at the areas of interest identified in the Phase I ESA (Blasland, Bouck & Lee, Inc. [BBL], 1999b) for the Environmental Test Systems (ETS) Facility located at 23575 County Road 106 in Elkhart, Indiana (Figure 1). The field activities discussed in this report were completed at the ETS Property by BBL as part of the Phase II ESA at the request of Danaher Corporation (Danaher).

1.2 Tasks

Based on the results of the Phase I ESA, which reviewed pertinent historical and current operations, an assessment of the soil and groundwater characteristics at select locations was recommended. The following locations were selected:

- The former septic system tank and leach field located on the east side of the facility; and
- The former septic system tank and leach field located south of the facility.

The following tasks were performed as part of the Phase II ESA:

- Advanced soil borings;
- Installed temporary monitoring wells; and
- Collected soil and groundwater samples.

1.3 Report Organization

This Phase II Report is presented in seven sections. Section 1 presents the objectives of the Phase II ESA activities, and the organization of the report. Section 2 presents an overview of the ETS Property and the buildings on the property. Section 3 presents a description of the environmental setting for the ETS Property, which consists of a brief description of the regional and site-specific geology. Section 4 presents a summary of the Phase I ESA results. Section 5 presents a discussion of the activities that were performed as part of the Phase II ESA. Section 6 presents a discussion of the analytical results. Section 7 presents a list of references that were used during the Phase II ESA.

1.4 Limitations to ESA

The conclusions reached are based on the limits of the assessment described in this report. BBL can offer no assurances and assumes no responsibility for site conditions or activities that were outside the scope of the inquiry as documented in the scope of work letter to Mr. James Ditkoff, Vice President of Danaher (BBL, 1999a).

Danaher understands that BBL has relied on the accuracy of documents, oral information, and other material and information provided by sources documented in this report, including ETS. There can be no assurance, and BBL offers no assurance, that site conditions do not exist, or will not exist in the future, that were undetected and that could lead to liability in connection with the site. Similarly, past and present activities on the site indicating the potential for the existence of environmental concerns may not have been discovered by BBL's assessment activities. Such activities may include those that would indicate the potential for regulated hazardous substances at the site. BBL has reviewed the information obtained in its limited assessment, in keeping with existing

applicable environmental consulting standards and enforcement practices, but cannot predict what actions any given agency may take presently or what standards and practices may apply to the site in the future.

In performing its assessments, BBL has used reasonable care and has performed its services in keeping with applicable environmental consulting standards and appropriate standard agency procedures.

This report and other instruments of service are prepared for and made available for the sole use of Danaher, and the contents thereof may not be used or relied upon by any other person without the express written consent and authorization of BBL.

2. Site Overview

The ETS Facility is located at 23575 County Road 106 in the township of Osolo in Elkhart County, Indiana (Figure 1). The general layout and operations of the ETS Facility are discussed below.

2.1 Site Layout

The ETS Facility is located on approximately 4.4 acres northeast of the City of Elkhart, Indiana. The property is comprised of three attached buildings (Buildings #1, #2, and #3). Building #1 is the original building constructed in 1985. Buildings #2 and #3 were added in 1989 and 1994, respectively. The combined buildings total approximately 40,000 square feet. The metal buildings with a concrete slab on grade foundation are located along the western side of the property and adjacent to County Road 106.

The facility is connected to a municipal water supply and use an on-site 2-inch well located east of Building #1 for the water source for the fire protection sprinkler system. Prior to 1992, the facility was connected to a septic leaching system and process wastewaters discharged to two septic systems. These septic systems were located south and east of Buildings #1 and #2. Since 1992, sanitary and process wastewaters have been discharged to the City of Elkhart publicly-owned treatment works (POTW).

Two dumpsters were observed at the eastern side of the facility: one for general trash disposal and one for recyclable paper materials. Manufacturing wastes generated at the facility are collected and stored on the first floor of Building #2 in an open warehouse area. Waste streams generated at the facility are described in Section 5.1.2.

Paved parking areas are located north and east of the three buildings and comprise most of the remaining property. The northernmost portion of the property is an open lawn area. A drainage swale conveys surface-water runoff eastward along the northern property boundary and then southward along a portion of the eastern property boundary.

The ETS Facility is located within an area known as Northland Industrial Park. The ETS Property is bounded to the north, east, and west by other manufacturing facilities. The property is bounded to the south by County Road 106. Residential properties are located directly south of County Road 106.

2.2 Site Activities

The primary activity conducted at the ETS Facility is manufacturing of paper test strips. These test strips are chemically treated paper strips used for testing chemical presence and/or quantities for several applications. The test strips produced by the ETS Facility are primarily used in the pool and spa industry, however, ETS produces a variety of different test strips for several applications. In addition to manufacturing, the ETS Facility houses laboratories for product research and development, and offices for administration and marketing.

3. Environmental Setting

3.1 Regional Setting

Information presented in the United States Department of Agriculture (USDA) Soil Conservation Service (SCS) document entitled "Soil Survey of Elkhart County, Indiana" (SCS, 1974) indicates that the ETS Property is located in the Kamakee Outwash and Lacustrine Plain physiographic province. Overburden in this area is classified as the Atherton Formation. This formation consists of an undifferentiated glacially-derived outwash, composed primarily of sand and gravel (Indiana Department of Natural Resources [IDNR], 1989). Soils in this area consist of the Plainfield Series and the Brems Series. Both of these soil types are deep, coarse-textured soils that are formed in outwash plains and knolls. These soils are moderately to excessively well drained and are nearly level to moderately sloping. Groundwater is located approximately 5 to 10 feet below grade according to the SCS soil survey report.

Bedrock underlying the ETS Property is composed of the Mississippian Ellsworth Shale Formation. This bedrock unit is located at depths ranging from 50 to 150 feet below grade and is approximately 300 feet thick (IDNR; 1970, 1987).

Based on a review of the United States Geological Survey (USGS) topographic map for the area (USGS, 1961), the ETS Property and surrounding area is relatively flat, sloping gently southwest toward the St. Joseph River, which is approximately 1.3 miles south of the property. Surface elevations on the property range from approximately 770 to 775 feet above mean sea level. Based on the topography, shallow groundwater is expected to flow south-southwest toward the St. Joseph River.

3.2 Property Observations

Based on the results of the Phase II ESA, the property is generally underlain by at least 10 feet of moderately loose sand deposits with varying amounts of silt and gravel. Based on regional information, the thickness of the overburden typically varies from 50 to 150 feet. Groundwater was observed at approximately 5 to 6 feet bgs at both former septic system locations.

4. Summary of Phase I Results

In general, the ETS Facility appeared to be neat and well kept. However, due to the nature of the chemicals that have been used at the facility, additional assessment activities were recommended.

The original ETS Facility was constructed in 1985 on this property and consisted of one building (currently known as Building #1). Buildings #2 and #3 have since been added to the original structure (in 1989 and 1994, respectively). ETS was purchased by Hach Company in April 1998, however, operations at the facility have generally remained unchanged under the new ownership (ETS, 1999). ETS continues to operate as a wholly-owned subsidiary of Hach Company.

Current site operations include raw materials storage, research and development, manufacturing, packaging, finished product storage, quality assurance testing, administration, and marketing.

In general, the facility consists of three attached metal buildings constructed on concrete slab foundations. Portions of Buildings #1 and #2 consist of a first and second floor. Building #3 has a first floor only. The buildings are heated with natural gas-fueled furnaces and are cooled with roof-mounted heating, ventilation, air conditioning (HVAC) units.

The southern portion of the site is composed of a lawn area and an access driveway to County Road 106. County Road 106 borders the site to the south, and further south is an area developed with residential housing. The eastern portion of the site consists of parking areas and a lawn area. The northern portion of the site consists of a parking area and a lawn area. A drainage swale is located near the northern boundary of the site and more industrial properties are further to the north. At the time of the site visit, no water was observed in the portion of the swale that is located along the northern property boundary. Shallow water was noted near the northeast corner of the site, where this drainage swale joins a north-south swale. No sheens were observed.

Two septic systems were used at the ETS Facility until 1992. The original septic system was within a grassy area located south of the facility. The second septic system was located in a grassy area east of Building #2. Liquid from each of the septic tanks was sampled in 1992 by the Elkhart County Health Department and the results indicated that the tank on the east side of Building #2 contained toluene at a concentration of 54 parts per billion (ppb), and the tank located on the south side of Building #1 contained 1,1- dichloroethene and 1,1,1-trichloroethane at concentrations of 1,940 ppb and 2,770 ppb, respectively. ETS has indicated that these tanks were emptied, crushed, and abandoned in place in 1992. At that time the ETS Facility was connected to the City of Elkhart POTW.

According to ETS personnel, there are four general waste streams generated by the manufacturing process at the ETS Facility. These waste streams include:

- Hazardous solids consisting primarily of scraps of paper treated with reagents, such as chromium, silver, and arsenic;
- Hazardous liquids consisting of leftover chemical reagents, such as chromium, silver, and arsenic;
- Flammable liquids consisting of leftover chemical reagents, such as organic solvents (i.e., primarily reagent alcohol, which contains 90 percent ethyl alcohol, 5 percent isopropyl alcohol, and 5 percent methanol; and small quantities of acetone, ethyl acetate, isopropyl alcohol, methyl ethyl ketone, and toluene); and

- Non-regulated waste consisting of liquid wastes that contain concentrations of chemicals that are above the City of Elkhart's sewer discharge limits, but are not regulated by the Indiana Department of Environmental Management (IDEM) or the United States Environmental Protection Agency (USEPA).

5. Phase II Field Activities

5.1 General

Field activities were completed between April 26 and April 28, 1999, in accordance with the Scope of Work for the Phase II ESA outlined in a letter to Danaher dated April 26, 1999. The following field activities were completed as part of the Phase II ESA:

- Soil boring installations and soil sampling;
- Installation and development of temporary monitoring wells; and
- Groundwater sampling.

A description of these activities is provided below.

5.2 Soil Boring Installation and Soil Sampling

To collect site-specific physical and chemical characterization information six borings were installed at the ETS Property from April 27 to April 28, 1999. Three soil borings (TW-1 through TW-3) were installed in the location of the southern former septic system and three soil borings (TW-4 through TW-6) were installed in the location of the eastern former septic system. The six soil borings were advanced to a depth of 10 feet bgs. Temporary monitoring well points were subsequently installed at each boring location to collect preliminary groundwater quality data in these locations. Details of the temporary monitoring well installation are discussed in Section 5.4.

Borings were advanced with a trailer-mounted CME 45 drilling rig using direct-push drilling techniques. In general, all borings were sampled at 2-foot intervals, and soil samples were collected with a split-barrel sampler. Recovered soil samples were visually classified and screened for volatile organic compounds (VOCs) using a portable photoionization detector (PID). One soil sample per boring was selected for analysis based on the highest PID measurement and observations of soil staining by BBL's field staff. Soil samples were submitted to Severn Trent Laboratories (STL) of Monroe, Connecticut, to be analyzed for USEPA SW-846 Target Compound List (TCL) VOCs using USEPA Method 8260, TCL semi-volatile organic compounds (SVOCs) using USEPA Method 8270, and Target Analyte List (TAL) inorganic constituents (including cyanide) using USEPA Methods 6000/7010 series and cyanide by Method 9010. Detected constituents in soil samples collected from the ETS Property are presented on Table 1. A detailed description of the site geology is described in Section 4 and on subsurface logs, presented in Appendix A.

Drilling equipment and associated tools that may have come in contact with soils and groundwater were cleaned with a high-pressure, hot water "steam cleaner" prior to beginning the investigation, between each soil boring, and upon completion of the field investigation. Split-barrel samplers were cleaned using a distilled water/Alconox solution with a subsequent distilled water rinse between each sampling interval.

All soils, rinse water, and purged groundwater from development and sampling were containerized in 55-gallon drums and stored within the fenced parking area north of the facility.

5.3 Installation and Development of Temporary Monitoring Wells

Temporary monitoring well points were installed at the six soil boring locations to collect further site-specific environmental information. Temporary monitoring well points TW-1 through TW-6 were installed between April 27 and 28, 1999. All well points were installed with a CME 45 trailer-mounted drilling rig using direct-push drilling techniques. TW-1 was installed as a Hydropunch™-type driven well point, but this method proved to be inefficient due to the short screened section (less than 0.5 feet of screen) quickly being blocked by silt. Therefore,

temporary wells TW-2 through TW-6 consisted of 1.5-inch-diameter Schedule 40 PVC with a 5-foot, hand-cut (cut with a hack saw) screened interval. All well material was cleaned with a high-pressure, hot water "steam cleaner" prior to installation. Each well point was installed to a depth of approximately 10 feet bgs or approximately 4 feet below the water table. Locations of temporary well points are shown on Figure 2. Subsurface soil descriptions and detailed temporary well point construction are presented in the boring logs (Appendix A).

Following installation, each temporary monitoring well received development (at least three well volumes purged) using a peristaltic pump and disposable dedicated polyethylene tubing to remove fine-grained materials that may have settled in and around the well point during installation and to promote a hydraulic connection with the surrounding formation.

All six temporary well points were abandoned upon completing groundwater sampling activities by pulling the PVC well materials, backfilling the soil boring with bentonite pellets to 6 inches bgs, and placing topsoil from 6 inches bgs to ground surface.

5.4 Groundwater Sampling

Groundwater sampling of well points TW-1 through TW-6 was conducted between April 27 and 28, 1999. Each well point was purged by removing a minimum of three well volumes of groundwater using a peristaltic pump with dedicated, disposable, polyethylene tubing prior to groundwater sampling. Field parameters of pH, temperature, salinity, turbidity, dissolved oxygen, and conductivity were recorded in the field notebook and are listed in Table 2.

Groundwater samples from the six temporary well points were submitted to STL to be analyzed for TCL VOCs using USEPA Method 8260, TCL SVOCs using USEPA Method 8270, and unfiltered TAL inorganic compounds (including cyanide) using USEPA Methods 6000/7010 series and cyanide by Method 9010. Figure 2 presents the locations of the temporary well points. Detected compounds in groundwater samples collected from the ETS Property are presented in Table 3.

All purged groundwater from development and sampling was containerized in 55-gallon drums and stored within the fenced parking area north of the facility.

6. Results and Discussion

6.1 Hydrogeologic Conditions

Results of the Phase II activities indicate the following geologic and hydrogeologic conditions at the ETS Property:

- The property is generally underlain by over 10 feet of moderately loose sand deposits with varying amounts of silt and gravel. Based on regional information, the thickness of the overburden typically varies from 50 to 150 feet.

- Groundwater was observed at approximately 5 to 6 feet bgs at both former septic system locations. Based on a review of the USGS topographic map for the area (USGS, 1961), the ETS Property and surrounding area is relatively flat, sloping gently southwest toward the St. Joseph River, which is approximately 1.3 miles south of the site. Based on the topography, shallow groundwater is expected to flow south-southwest toward the St. Joseph River.

6.2 Analytical Results

Tables 1 through 3 summarize the results of the sampling performed as part of the Phase II ESA. The soil analytical results, compared to the IDEM Draft Tier 1 Soil Closure Levels (IDEM, 1999) and the reported range of inorganic concentrations in the Eastern United States as established by the USGS (USGS, 1984), are presented in Table 1. Table 2 summarizes the field parameter measurements obtained from the groundwater removed during monitoring well development. The groundwater analytical results, compared to USEPA Federal Maximum Contaminant Levels/Goals (MCLs/MCLGs) and Draft IDEM Method A and B Cleanup Levels, are presented in Table 3. Copies of the laboratory analytical data sheets and the chain-of-custody forms are provided in Appendix B. The following summarizes the findings of the Phase II ESA:

- The VOCs acetone and toluene were detected in soil samples collected from the ETS Property. The acetone detections are believed to be due to laboratory contamination since acetone was also detected in the associated laboratory blank sample at similar concentrations. Acetone and toluene were detected in one or more soil samples analyzed, at concentrations below the Draft Tier 1 Soil Closure Levels of 768 micrograms per kilograms (μg/kg) for acetone and 3,090 μg/kg for toluene, as provided in the Draft Technical Resource Guidance Document prepared by the IDEM (IDEM, 1999).

- Four SVOCs, diethylphthalate, di-n-butylphthalate, bis(2-ethylhexyl)phthalate, and di-n-octylphthalate, were detected in soil samples collected from the ETS Property. All of these SVOCs were also detected in the associated laboratory blank sample at similar concentrations, therefore the compounds are believed to be indicative of laboratory contamination.

- Metals were detected in soil at concentrations within the reported range for the Eastern United States (USGS, 1984), and below their respective Draft Tier 1 Soil Closure Levels (IDEM, 1999).

- The VOCs acetone, methylene chloride, and toluene were detected at low part per billion concentrations in groundwater samples collected from one or more temporary wells. The acetone and methylene chloride detections are indicative of laboratory contamination since both compounds were also detected in the associated laboratory blank sample at similar concentrations. Toluene was detected in groundwater samples collected from TW-01 and TW-02, at concentrations below the Draft Tier 1 Groundwater Closure Level of 1,000 μg/L (IDEM, 1999), and USEPA MCL of 1,000 μg/L (USEPA 1996).

- Eleven SVOC compounds were detected in groundwater samples collected from the site. Five of these compounds are believed to be due to laboratory contamination since these five compounds, bis(2-ethylhexyl)phthalate, butylbenzylphthalate, diethylphthalate, di-n-butylphthalate, and di-n-octylphthalate, were also detected in the associated laboratory blank at similar concentrations. The remaining six compounds, including 2-methylnaphthalene, benzoic acid, isophorone, naphthalene, phenanthrene, and phenol, were reported at concentrations below their respective Draft Tier 1 Groundwater Closure Levels (IDEM, 1999) (these compounds are not listed in the USEPA MCLs).

- The metals aluminum, iron, and manganese were detected in groundwater samples collected from all six temporary wells at concentrations above the USEPA Secondary Drinking Water Standards (USEPA, 1996). The metals arsenic, cadmium, chromium, lead, and nickel were also detected in the groundwater sample collected from TW-3 at concentrations slightly above the MCLs and the Draft Tier 1 Groundwater Closure Levels (IDEM, 1999). Based on our current understanding of chemical use at the ETS Facility, none of these metals are believed to have been used by the facility, with the exception of arsenic and chromium.

6.3 Summary

Based on the Phase I results, BBL recommended that the two former septic systems be further evaluated in this Phase II ESA at the ETS Property. These recommendations focused on sampling activities and analytical methods that were matched with the potential areas of interest. For example, VOCs were recommended for analysis in the soil and groundwater near the location of the former septic tank south of the facility, where VOCs were detected in liquid sampled from the tank prior to abandonment in 1992. Also, various chemicals, including arsenic, chromium, silver, and organic solvents are associated with manufacturing the chemically-treated paper strips. As a result of these recommendations the Phase II activities were completed.

While VOCs, SVOCs, and metals were detected in soil and groundwater samples collected from the ETS Property, the majority of the detections were either below the USEPA or IDEM criteria, or within the regional range for the Eastern United States background metal concentrations for soil. Given the limited sampling data and the focused sampling bias toward locations with a higher potential for past discharges, constituents that were above these criteria/concentrations appear to be localized.

The potential impact, if any, from these areas is assumed to be minimal for the following reasons:

- The contaminant levels are relatively low, even near the assumed source(s); and
- The properties are industrial in nature.

7. References

Blasland, Bouck & Lee, Inc. (BBL), 1999a. Letter from BBL to Mr. James Ditkoff (Danaher Corporation) regarding Scope of Work for Phase II Environmental Site Assessment, April 26, 1999a.

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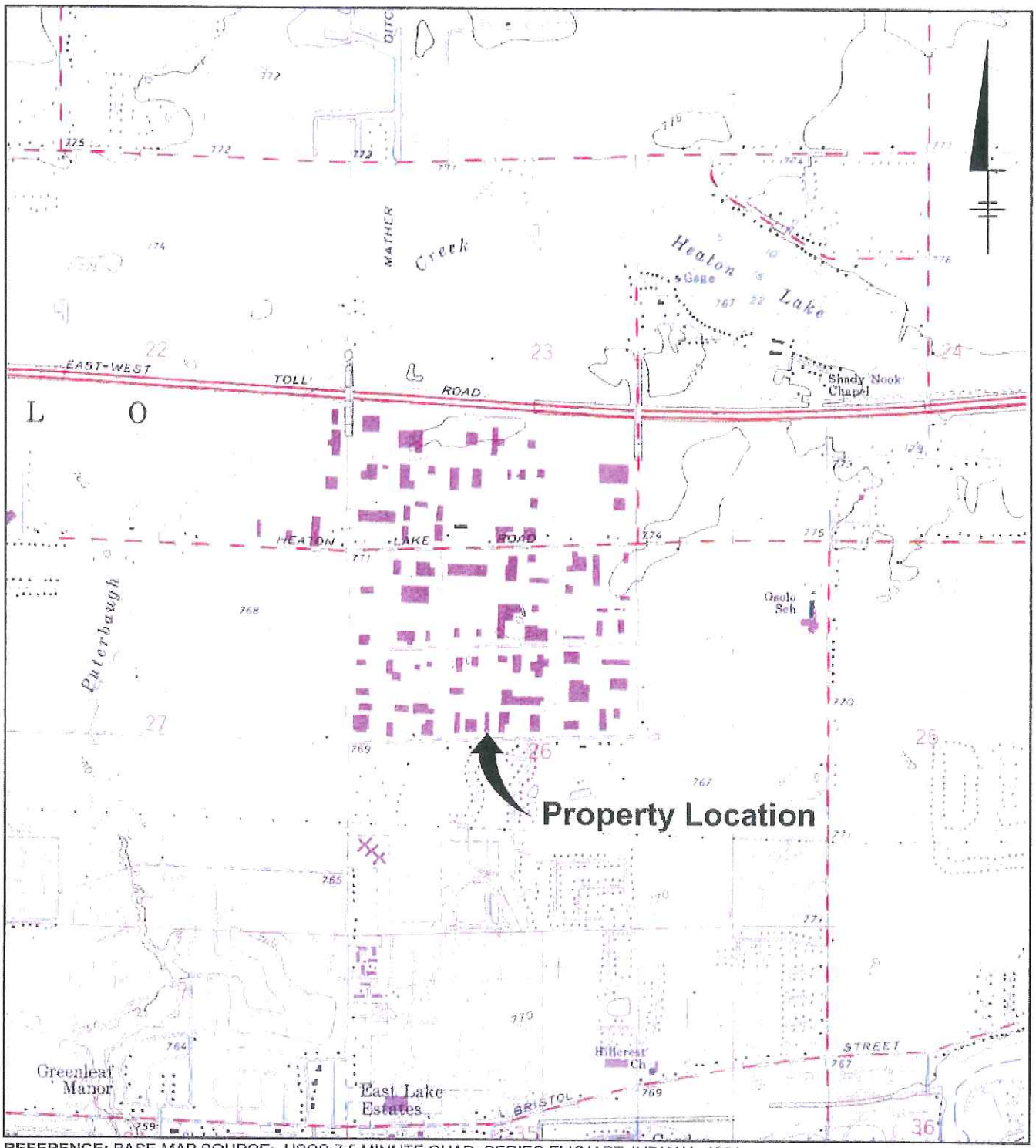
USGS, 1984. *Elemental Concentrations in Soils and Other Surficial Materials of the Conterminous United States*, USGS Professional Paper 1270, 1984.

Figures



REFERENCE: BASE MAP SOURCE: USGS 7.5 MINUTE QUAD. SERIES ELKHART, INDIANA, 1961.

2000' 0 2000'

Approximate Scale: 1" = 2000'

AREA LOCATION

DANAHER CORPORATION
ETS FACILITY - ELKHART, INDIANA

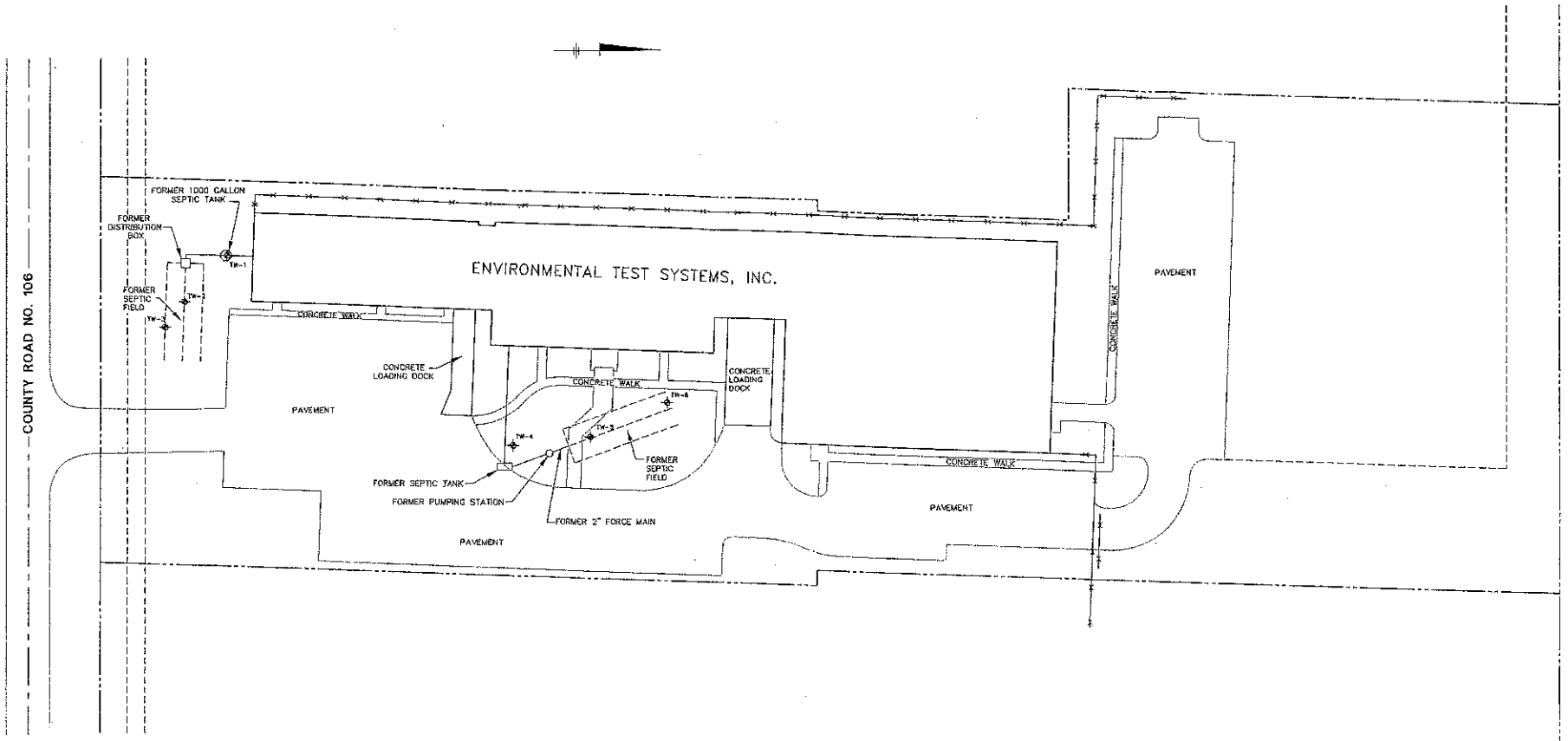
PHASE II ENVIRONMENTAL SITE ASSESSMENT

PROPERTY LOCATION MAP

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE 1

06/99 SYR-D54-DJH LBR
30738020/30738n01.cdr



LEGEND:

- APPROXIMATE PROPERTY LINE
- APPROXIMATE EASEMENT LINE
- CENTERLINE OF ROAD
- FENCE
- EXISTING BUILDING
- TW-2 TEMPORARY MONITORING WELL

NOTES:

1. ALL SITE FEATURES ARE APPROXIMATE.
2. BASE MAP SITE FEATURES LOCATED USING DISTANCES SHOWN ON A MAP PROVIDED BY ETS, INC. CORPORATION ENTITLED LAY-OUT STACK LOCATIONS, DATED 9/19/97.
3. SEPTIC SYSTEMS ADDED BY SCALING FROM A MAP ENTITLED: ADDITION TO ENVIRONMENTAL TEST SYSTEMS INC., DATED 6/13/88, (JOB; 88-215).
4. PROPERTY LINES AND EASEMENT LINES ADDED FROM A MAP PROVIDED BY ETS, INC., (NO TITLE OR DATE); THEY SHOULD NOT BE CONSIDERED ACCURATE.
5. LOCATION OF SEPTIC FIELD EAST OF THE FACILITY WAS ADJUSTED FROM THE PROPOSED ADDITION MAP (6/13/88) BASED ON DISCUSSIONS WITH THE ETS PLANT ENGINEER ON 4/28/99.
6. SAMPLE LOCATIONS ARE APPROXIMATE.

0 100' 200'
GRAPHIC SCALE

DANAHER CORPORATION
ETS FACILITY – ELKHART, INDIANA
PHASE II ENVIRONMENTAL SITE ASSESSMENT

SAMPLING LOCATIONS

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE 2

X (REF)
L: ON=1 OFF = REF*
P: 0362.PCP OR 692.PCP
5/14/09-54-SVR-MS
J0138026/J0738GC2.DWG

Tables

TABLE 1

DETECTED CONSTITUENTS IN SOIL

DANAHER CORPORATION
PHASE II ENVIRONMENTAL SITE ASSESSMENT
ELKHART, INDIANA

Constituent	Reported Range for Eastern U.S.[1]	Estimated Range Concentration for Northern Indiana	Indiana Tier 1 Soil Closure Subsurface[2]	TW-01 (5.5-7.5') 4/27/1999	TW-02 (4.0-6.0') 4/27/1999	TW-03 (4.0-6.0') 4/27/1999	TW-04 (4.0-6.0') 4/28/1999	TW-05 (4.0-6.0') 4/28/1999	TW-05 DUPLICATE 4/28/1999	TW-06 (2.0-4.0') 4/28/1999
VOCs (ug/kg)										
Acetone	NA	NA	3,090	6.0 JB	12 B	14 B	16 B	17 B	11 JB	22 B
2-Butanone (MEK)	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
Toluene	NA	NA	11,800	5.0 J	6.0	7.0	9.0	9.0	ND	9.0
SVOCs (ug/kg)										
Diethylphthalate	NA	NA	453,000	8.0 JB	6.0 JB	11 JB	6.0 JB	12 JB	6.0 JB	4.0 JB
Di-n-butylphthalate	NA	NA	NA	33 JB	29 JB	31 JB	27 JB	36 JB	23 JB	32 JB
Bis(2-Ethylhexyl)phthalate	NA	NA	1,000,000	24 JB	17 JB	19 JB	16 JB	47 JB	15 JB	13 JB
Di-n-octylphthalate	NA	NA	1,000,000	20 JB	42 JB	52 JB	41 JB	76 JB	140 JB	83 JB
Inorganics (mg/kg)										
Aluminum	7,000 - >100,000	700 - 20,000	NA	3010	3080	2250	3230	1920	2080	7470
Arsenic	<0.1 - 73	4.1	29,200	1.4	2.0	ND	2.6	ND	ND	3.0
Barium	10 - 1,500	300	1,000,000	ND	ND	ND	ND	ND	ND	45.7
Calcium	100 - 280,000	3,500 - 5,200	NA	ND	ND	ND	ND	ND	ND	ND
Chromium	1 - 1,000	1 - 20	38,400(TOTAL)	5.1	5.8	4.2	5.4	4.0	4.2	8.8
Copper	<1 - 700	15	582,000	4.0	ND	ND	ND	ND	ND	ND
Iron	100 - >100,000	15,000	NA	5080	4820	3800	5050	2530	3720	8050
Lead	<10 - 300	<10	81,000	2.9	2.6	3.0	3.4	2.0	2.1	5.2
Magnesium	50 - 50,000	50 - 1,500	NA	784	ND	ND	ND	ND	ND	1120
Manganese	<2 - 7,000	700	NA	81	51.8	25.7	129	31.4	48.8	240
Nickel	<5 - 700	15	130,000	ND	ND	ND	ND	ND	ND	ND
Selenium	<0.1 - 3.9	<0.1 - 0.1	5,200	ND	ND	ND	1.4	ND	ND	1.2
Vanadium	<7 - 300	<7 - 20	ND	6.7	ND	ND	ND	ND	ND	13.8
Zinc	<5 - 2,900	28	1,000,000	21.8	15.7	20.9	16.8	8.4	11.7	25.2

NOTES:

Concentrations for organic compounds in micrograms per kilogram (ug/kg), equivalent to parts per billion (ppb).
Concentrations for inorganic constituents in milligrams per kilogram (mg/kg), equivalent to parts per million (ppm).
B = Indicates that the compound was also detected in an associated blank.
J = Indicates that the concentration is estimated.
ND = Not detected.
Inorganics = Target Analyte List (TAL) inorganic constituents (including cyanide), analyzed by USEPA Methods 6000/7000 series for metals and cyanide by 9010.
SVOCs = Target Compound List (TCL) semi-volatile organic compounds, analyzed by USEPA Method 8270.
VOCs = TCL volatile organic compounds, analyzed by USEPA Method 8260.
Table presents constituents that were detected in at least one sample.
Samples collected by BBL and analyzed by Severn Trent Laboratories, Monroe, Connecticut.
Shading indicates inorganic concentrations above Northern Indiana background concentrations.

Criteria Qualifiers:
NA - Not available.

Criteria Reference:
[1] - United States Geological Survey (USGS), Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States, 1984. Concentration in parts per million.
[2] - Indiana Department of Environmental Management (IDEM), Draft Technical Resource Guidance Document, February 18, 1999.

TABLE 2

FIELD MEASUREMENTS FOR TEMPORARY WELL SAMPLING

DANAHER CORPORATION
PHASE II ENVIRONMENTAL SITE ASSESSMENT
ELKHART, INDIANA

Parameter	TW-01 4/27/1999	TW-02 4/28/1999	TW-03 4/28/1999	TW-04 4/28/1999	TW-05 4/28/1999	TW-06 4/28/1999
Temperature (Degrees Centigrade)	14.9	9.0	9.0	12.3	13.1	11.3
Salinity (Percent)	0.02	0.01	0.01	0.02	0.01	0.01
pH (Standard units)	6.84	8.15	8.32	7.58	6.80	6.31
Specific Conductivity (Milliseimens per centimeter)	624	446	454	492	449	426
Turbidity (Nephelometric turbidity units [NTUs])	4	135	>999	86	213	55
Dissolved Oxygen (Milligrams per liter; mg/L)[1]	11.46	11.28	11.37	12.91	13.05	13.17

Notes:

All of the measurements summarized above were taken in the field with a Horiba Instruments Model U-10 meter.

[1] Dissolved oxygen saturation for groundwater ranges from approximately 11 mg/L for a water temperature of 9°C to approximately 9.5 mg/L for a water temperature of 15°C, therefore these readings appear to be high.

TABLE 3

DETECTED CONSTITUENTS IN GROUNDWATER

DANAHER CORPORATION
PHASE II ENVIRONMENTAL SITE ASSESSMENT
ELKHART, INDIANA

Constituent	USEPA MCL/MCLGs[1]	Indiana Tier I Groundwater Closure[2]	TW-01 4/27/1999	TW-02 4/29/1999	TW-02 DUPLICATE 4/29/1999	TW-03 4/28/1999	TW-04 4/28/1999	TW-05 4/28/1999	TW-06 4/28/1999
VOCs (ug/L)									
Acetone	NA	768	5.0 JB	ND	ND	14	ND	3.0 JB	ND
Methylene Chloride	5 / 0	NA	2.0 JB	ND	ND	ND	ND	ND	ND
Toluene	1,000	1,000	0.3 J	0.4 J	ND	ND	ND	ND	ND
SVOCs (ug/L)									
2-Methylnaphthalene	NL	NA	0.2 J	ND	ND	ND	ND	ND	ND
Benzoic Acid	NL	146,000	0.3 J	ND	2.0 J	0.2 J	ND	0.2 J	0.3 J
Bis(2-Ethylhexyl)phthalate	6	6	0.1 JB	0.3 JB	0.5 JB	2.0 JB	0.1 JB	0.1 JB	0.3 JB
Butylbenzylphthalate	NA	2,690	ND	ND	0.2 JB	ND	ND	ND	ND
Diethylphthalate	NA	29,200	0.2 JB	0.3 JB	0.4 JB	0.4 JB	0.1 JB	0.2 JB	0.2 JB
Di-n-butylphthalate	NL	3,650	0.6 JB	0.3 JB	3.0 JB	0.9 JB	0.5 JB	0.5 JB	0.7 JB
Di-n-octylphthalate	NL	20	0.1 JB	0.2 JB	0.6 JB	3.0 JB	0.4 JB	0.5 JB	0.7 JB
Isophorone	NA	896	ND	0.1 J	ND	0.6 J	0.2 J	0.1 J	0.1 J
Naphthalene	NA	307	0.1 J	ND	ND	0.04 J	ND	ND	ND
Phenanthrene	NA	ND	0.09 J	ND	ND	ND	ND	ND	ND
Phenol	NA	21,900	0.1 J	ND	ND	ND	ND	ND	ND
Inorganics (mg/L)									
Aluminum	0.05 S	NA	1.04	0.46	2.78	93.8	3.73	7.42	2.59
Arsenic	0.05	0.05	ND	ND	ND	0.108	ND	ND	ND
Barium	2	2	ND	ND	ND	0.532	ND	ND	ND
Cadmium	0.005	0.005	ND	ND	ND	0.0122	ND	ND	ND
Calcium	NL	NA	92.7	95.7	92.6	803	90.9	52.2	43.6
Chromium	0.1	0.1	0.0238	ND	ND	0.317	ND	0.0115	ND
Cobalt	NL	NA	ND	ND	ND	0.113	ND	ND	ND
Copper	1.3, AL, tap	1.3	ND	ND	ND	0.322	ND	ND	ND
Iron	0.3 S	NA	3.62	0.69	5.33	180	6.39	9.33	3.89
Lead	0.015, AL, tap	0.015	0.0082	0.0078	0.0062	0.202	0.0082	0.0098	0.0053
Magnesium	NL	NA	26.2	32.8	26.2	406	27	13.4	16.2
Manganese	0.05 S	NA	0.222	0.229	0.175	7.6	0.513	0.542	0.55
Mercury	0.002	0.002	ND	ND	ND	0.00058	ND	ND	ND
Nickel	0.1	0.1	ND	ND	ND	0.235	ND	ND	ND
Potassium	NL	NA	ND	ND	ND	19.8	ND	6.87	ND
Sodium	NA	NA	33.2	19.6	19.2	29.1	23.4	38.5	20.3
Vanadium	NA	NA	ND	ND	ND	0.184	ND	ND	ND
Zinc	5 S	11	0.0505	0.0262	ND	0.653	0.0273	0.0342	0.0249

NOTES:

Concentrations for organic compounds in micrograms per liter (ug/L), equivalent to parts per billion (ppb).
Concentrations for inorganic constituents in milligrams per liter (mg/L), equivalent to parts per million (ppm).
B = Indicates that the compound was also detected in an associated blank.
J = Indicates that the concentration is estimated.
ND = Not detected.
Inorganics = Target Analyte List (TAL) inorganic constituents (including cyanide), analyzed by USEPA Methods 6000/7000 series for metals and cyanide by 9010.
SVOCs = Target Compound List (TCL) semi-volatile organic compounds, analyzed by USEPA Method 8270.
VOCs = TCL volatile organic compounds, analyzed by USEPA Method 8260.
Table presents constituents that were detected in at least one sample.
Samples collected by BBL and analyzed by Severn Trent Laboratories, Monroe, Connecticut.
Shading indicates concentration at or above the USEPA criteria.
Bold indicates concentration at or above IDEM criteria.

Criteria Qualifiers:
NA - Not available.
NL - Not listed.
AL - Action level
MCL/MCLG - Maximum Contaminant Level/ Maximum Contaminant Level Goal
S - Secondary Drinking Water Standards

Criteria Reference:
[1] - United States Environmental Protection Agency (USEPA), Drinking Water Regulations and Health Advisories, EPA 822-B-96-002, October 1996.
[2] - Indiana Department of Environmental Management (IDEM), Draft Technical Resource Guidance Document, February 18, 1999.

Appendix A
Soil Boring Logs

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Date Start/Finish: 4/27/99 / 4/27/99
Drilling Company: Mateco Drilling Co.
Driller's Name: Jim Priest
Drilling Method: Direct-Push

Rig Type: CME-45 Trailer Mount

Borehole Depth: 10 feet

Geologist: David Lay

Well No: TW-1

Client:
Danaher Corporation

Location:
Environmental Testing Systems, Inc.
Elkhart, Indiana

DEPTH / ELEVATION	Sample Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
									GROUND SURFACE	
	(0-2')		NA	NA	1.8	0.0/0.0			TOPSOIL with grass, rootlets (Top 2"). Brown fine to medium SAND, trace Silt, coarse Sand and Gravel, loose, moist.	
	(2-4')		NA	NA	0	NA			No recovery (2-4' bgs).	
5										
	(5.5-7.5')*		NA	NA	2.0	0.0/0.0			Same as above. Wet at 7.2' bgs.	
	(7.5-9.5')		NA	NA	1.3	0.0/0.0			Brown medium SAND, trace coarse Sand, loose, wet.	
10									End of sampling at 9.5' bgs. Screen driven to 10' bgs.	
									Installed as a temporary well. Abandoned after sampling, 4/27/99. Borehole backfilled with bentonite pellets.	

Driven point casing

Driven point screen (9.5-10' bgs).

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Remarks:
* Soil sample collected from 5.5-7.5' interval for laboratory analysis. ags/bgs - above/below ground surface. NA - Not available.

Saturated Zones

Date / Time	Elevation	Depth
4/27/99		5.5

Project: 307.38.020
File: TW-1.LOG
Script: 99nbbl
Date: 07/12/99

Date Start/Finish: 4/27/99 / 4/27/99
Drilling Company: Mateco Drilling Co.
Driller's Name: Jim Priest
Drilling Method: Direct-Push

Rig Type: CME-45 Trailer Mount

Borehole Depth: 10 feet

Geologist: David Lay

Well No: TW-2

Client:
Danaher Corporation

Location:
Environmental Testing Systems, Inc.
Elkhart, Indiana

DEPTH / ELEVATION	Sample Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
									GROUND SURFACE	
	(0-2')		NA	NA	1.4	0.0/0.0			TOPSOIL with grass, rootlets (Top 2"). Brown fine to medium SAND, trace Silt, coarse Sand and Gravel, loose, moist.	
	(2-4')		NA	NA	1.0	0.0/0.0			Grades to trace coarse Sand.	1.5" diameter PVC casing (0-4.5' bgs).
5	(4-6')*		NA	NA	1.4	0.0/0.0				
	(6-8')		NA	NA	0.9	0.0			Wet at 6' bgs.	1.5" diameter hand-cut PVC screen (3.3-8.3').
	(8-10')		NA	NA	1.4	0.0			Brown coarse SAND and fine GRAVEL, little Silt and fine to medium Sand, loose, wet, slight septic odor.	
10									Brown medium SAND, little coarse Sand, trace Gravel, loose, wet.	
									End of sampling at 10' bgs.	
									Installed as a temporary well. Abandoned after sampling, 4/28/99. Borehole backfilled with bentonite pellets.	
15										

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Remarks:
* Soil sample collected from 4-6' interval for laboratory analysis. ags/bgs - above/below ground surface. NA - Not available.

Saturated Zones

Date / Time	Elevation	Depth
4/28/99		5.88 ▼

Project: 307.38.020
File: TW-2.LOG
Script: 99nbbl
Date: 07/12/99

Date Start/Finish: 4/27/99 / 4/27/99
Drilling Company: Mateco Drilling Co.
Driller's Name: Jim Priest
Drilling Method: Direct-Push

Rig Type: CME-45 Trailer Mount

Borehole Depth: 10 feet

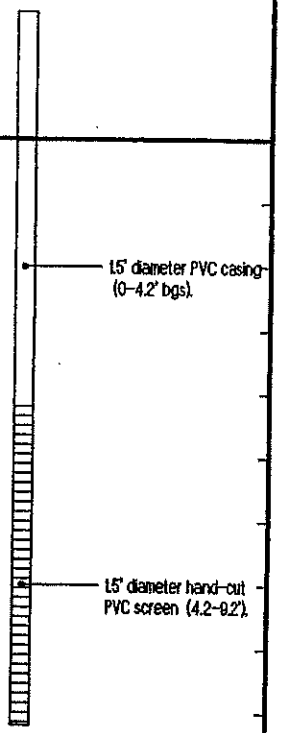
Geologist: David Lay

Well No: TW-3

Client:
Danaher Corporation

Location:
Environmental Testing Systems, Inc.
Elkhart, Indiana

DEPTH / ELEVATION	Sample Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
									GROUND SURFACE	
	(0-2')		NA	NA	1.5	0.0/0.0			TOPSOIL with grass, rootlets (Top 2"). Brown fine to medium SAND, little Silt, trace coarse Sand, loose, moist.	
	(2-4')		NA	NA	0.9	0.0/0.0				
5	(4-6')*		NA	NA	1.6	0.0/0.0			Wet at 5.8' bgs, iron oxide staining just above water table.	
	(6-8')		NA	NA	0.8	0.0/0.0				
10	(8-10')		NA	NA	2.0	0.0/0.0			Brown medium SAND, little coarse Sand and Gravel, loose, wet.	
									End of sampling at 10' bgs.	
									Installed as a temporary well. Abandoned after sampling, 4/28/99. Borehole backfilled with bentonite pellets.	
15										



BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Remarks:
* Soil sample collected from 4-6' interval for laboratory analysis. ags/bgs - above/below ground surface. NA - Not available.

Saturated Zones

Date / Time	Elevation	Depth
4/28/99		5.31 ▼

Project: 307.38.020
File: TW-3.LOG
Script: 99nbbl
Date: 07/12/99

Date Start/Finish: 4/28/99 / 4/28/99
Drilling Company: Mateco Drilling Co.
Driller's Name: Jim Priest
Drilling Method: Direct-Push

Rig Type: CME-45 Trailer Mount

Borehole Depth: 10 feet

Geologist: David Lay

Well No: TW-4

Client:
Danaher Corporation

Location:
Environmental Testing Systems, Inc.
Elkhart, Indiana

DEPTH / ELEVATION	Sample Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
									GROUND SURFACE	
	(0-2')		NA	NA	2.0	0.0/0.0			TOPSOIL with grass, rootlets (Top 2"). Brown fine to medium SAND, little Silt, trace coarse Sand and Gravel loose, moist.	1.5" diameter PVC casing (0-4.1' bgs).
	(2-4')		NA	NA	1.3	0.0/0.0				
5	(4-6')*		NA	NA	2.0	0.0/0.0			Grades between wet at 5.5-6.0' bgs.	
	(6-8')		NA	NA	1.3	0.0/0.0			Brown coarse SAND and fine GRAVEL, little fine to medium Sand, loose, wet.	1.5" diameter hand-cut PVC screen (4.1-9.1').
	(8-10')		NA	NA	1.4	0.0/0.0			Brown medium SAND, little coarse Sand and Gravel, loose, wet.	
10									End of sampling at 10' bgs.	
									Installed as a temporary well. Abandoned after sampling, 4/28/99. Borehole backfilled with bentonite pellets.	
15										

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Remarks:
* Soil sample collected from 4-6' interval for laboratory analysis. ags/bgs - above/below ground surface. NA - Not available.

Saturated Zones

Date / Time	Elevation	Depth
4/28/99		5.00 ▼

Project: 307.38.020
File: TW-4.LOG
Script: 99nbbl
Date: 07/12/99

Date Start/Finish: 4/28/99 / 4/28/99
Drilling Company: Mateco Drilling Co.
Driller's Name: Jim Priest
Drilling Method: Direct-Push

Rig Type: CME-45 Trailer Mount

Borehole Depth: 10 feet

Geologist: David Lay

Well No: TW-5

Client:
Danaher Corporation

Location:
Environmental Testing Systems, Inc.
Elkhart, Indiana

DEPTH / ELEVATION	Sample Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
									GROUND SURFACE	
	(0-2')		NA	NA	1.6	0.0/0.0			Dark brown TOPSOIL with grass, rootlets (Top 2"). Brown fine to medium SAND, little Silt, and Gravel loose, moist.	1.5' diameter PVC casing (0-4.6' bgs).
	(2-4')		NA	NA	0.8	0.0/0.0				
5	(4-6')*		NA	NA	1.5	0.0/0.0			Grades between wet at 5.5-6.0' bgs.	
	(6-8')		NA	NA	0.9	0.0/0.0				1.5' diameter hand-cut PVC screen (4.6-9.6').
	(8-10')		NA	NA	1.3	0.0/0.0				
10									End of sampling at 10' bgs.	
									Installed as a temporary well. Abandoned after sampling, 4/28/99. Borehole backfilled with bentonite pellets.	
15										

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Remarks:
* Soil sample collected from 4-6' interval for laboratory analysis. ags/bgs - above/below ground surface. NA - Not available.

Saturated Zones

Date / Time	Elevation	Depth
4/28/99		5.10 ▼

Project: 307.38.020
File: TW-5.LOG
Script: 99nbbl
Date: 07/12/99

Date Start/Finish: 4/28/99 / 4/28/99
Drilling Company: Mateco Drilling Co.
Driller's Name: Jim Priest
Drilling Method: Direct-Push

Rig Type: CME-45 Trailer Mount

Borehole Depth: 10 feet

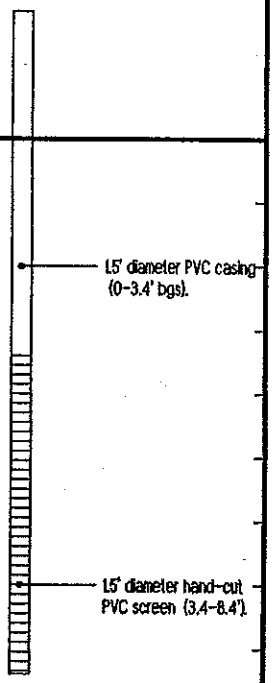
Geologist: David Lay

Well No: TW-6

Client:
Danaher Corporation

Location:
Environmental Testing Systems, Inc.
Elkhart, Indiana

DEPTH ELEVATION	Sample Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
									GROUND SURFACE	
	(0-2')		NA	NA	1.6	0.0/0.0			Dark brown TOPSOIL (top 1"). Brown fine SAND and SILT, little medium Sand, wood particles, loose, moist.	
	(2-4')*		NA	NA	0.9	0.0/0.0			Brown fine to medium SAND, little Silt, loose, moist.	
5	(4-6')		NA	NA	1.4	0.0/0.0				
	(6-8')		NA	NA	1.0	0.0/0.0			Wet at 6.0' bgs.	
	(8-10')		NA	NA	2.0	0.0/0.0			Brown medium SAND, trace Silt, loose, wet.	
10									End of sampling at 10' bgs.	
									Installed as a temporary well. Abandoned after sampling, 4/28/99. Borehole backfilled with bentonite pellets.	
15										



BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Remarks:
* Soil sample collected from 2-4' interval for laboratory analysis. ags/bgs - above/below ground surface. NA - Not available.

Saturated Zones

Date / Time	Elevation	Depth
4/28/99		5.55 ▼

Project: 307.38.020
File: TW-6.LOG
Script: 99nbbl
Date: 07/12/99

Appendix B
Laboratory Analytical Data Sheets and Chain-of-Custody Forms

Committed To *Your* Success

Severn Trent Laboratories
200 Monroe Turnpike
Monroe CT 06468
Tel: (203) 261-4458
Fax: (203) 268-5346

May 20, 1999

Mr. David Lay
BLASLAND, BOUCK & LEE
6723 Towpath Road
Box 66
Syracuse, NY 13214

Dear Mr. Lay :

Please find enclosed the analytical results of 13 sample(s) received at our laboratory on April 30, 1999. This report contains sections addressing the following information at a minimum:

- sample summary
- analytical methodology
- state certifications
- definition of data qualifiers and terminology
- analytical results
- chain-of-custody

STL Report #7099-0979A	
Project ID: SOUTH BEND, IN	

Copies of this analytical report and supporting data are maintained in our files for a minimum of five years unless special arrangements have been made. Unless specifically indicated, all analytical testing was performed at this laboratory location and no portion of the testing was subcontracted.

We appreciate your selection of our services and welcome any questions or suggestions you may have relative to this report. Please contact your customer service representative at (203) 261-4458 for any additional information. Thank you for utilizing our services; we hope you will consider us for your future analytical needs.

I have reviewed and approved the enclosed data for final release.

Very truly yours,

Jeffrey C. Curran
Laboratory Manager

JCC

7099-0979A

BLASLAND, BOUCK & LEE

Case Narrative

Metals - ICAP metals were determined using a JA61E trace ICAP; mercury was determined by the cold vapor technique utilizing a Leeman Labs mercury analyzer using guidance provided in SW846 according to the following Methods: ICAP-3050/6010; mercury-7471.

No problems occurred during analysis. All appropriate protocols were employed. All data appears to be consistent.

Classical Chemistry - Listed below are the wet chemistry analyte methods and references for the samples analyzed in this SDG. No other analytical problems were encountered.

Analyte	Method	Reference
Cyanide-T	9012	1

References:

1. Test Methods for the Evaluation of Solid Wastes, SW846, 3rd ed., 1986.

Volatile Organics - Volatile organics were determined by purge and trap GC/MS using guidance provided in Method 8260B. The instrumentation used was a Tekmar Model 2000/2016 Concentrator interfaced with a Hewlett-Packard Model 5970A GC/MS/DS.

No problems were encountered.

Semi-Volatile Organics - Semi-volatile organic samples were extracted and analyzed by capillary GC/MS using guidance provided in Methods 3550/8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

All samples were extracted, concentrated and analyzed without any apparent problems.

TABLE VO-1.0
7099-0979A
BLASLAND, BOUCK & LEE
TCL VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	TW-1 (5 .5-7.5)	TW-2 (4-6)	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKK1	990979A-01	990979A-02	
Method Blank I.D.	VBLKK1	VBLKK1	VBLKK1	
Quant. Factor	1.00	1.14	1.09	
Chloromethane	U	U	U	10
Bromomethane	U	U	U	10
Vinyl Chloride	U	U	U	10
Chloroethane	U	U	U	10
Methylene Chloride	U	U	U	5.0
Acetone	5J	6JB	12B	10
Carbon Disulfide	U	U	U	5.0
Vinyl Acetate	U	U	U	10
1,1-Dichloroethene	U	U	U	5.0
1,1-Dichloroethane	U	U	U	5.0
1,2-Dichloroethene (total)	U	U	U	5.0
Chloroform	U	U	U	5.0
1,2-Dichloroethane	U	U	U	5.0
2-Butanone	U	U	U	10
1,1,1-Trichloroethane	U	U	U	5.0
Carbon Tetrachloride	U	U	U	5.0
Bromodichloromethane	U	U	U	5.0
1,2-Dichloropropane	U	U	U	5.0
cis-1,3-Dichloropropene	U	U	U	5.0
Trichloroethene	U	U	U	5.0
Dibromochloromethane	U	U	U	5.0
1,1,2-Trichloroethane	U	U	U	5.0
Benzene	U	U	U	5.0
trans-1,3-Dichloropropene	U	U	U	5.0
Bromoform	U	U	U	5.0
4-Methyl-2-Pentanone	U	U	U	10
2-Hexanone	U	U	U	10
Tetrachloroethene	U	U	U	5.0
Toluene	U	5J	6	5.0
1,1,2,2-Tetrachloroethane	U	U	U	5.0
Chlorobenzene	U	U	U	5.0
Ethylbenzene	U	U	U	5.0
Styrene	U	U	U	5.0
Xylene (total)	U	U	U	5.0
Date Received		04/30/99	04/30/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	04/30/99	04/30/99	04/30/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE VO-1.1
7099-0979A
BLASLAND, BOUCK & LEE
TCL VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	TW-3 (4-6)	TW-4 (4-6)	TW-5 (4-6)	Quant. Limits with no Dilution
Lab Sample I.D.	990979A-03	990979A-04	990979A-05	
Method Blank I.D.	VBLKK1	VBLKK1	VBLKK1	
Quant. Factor	1.14	1.20	1.18	
Chloromethane	U	U	U	10
Bromomethane	U	U	U	10
Vinyl Chloride	U	U	U	10
Chloroethane	U	U	U	10
Methylene Chloride	U	U	U	5.0
Acetone	14B	16B	17B	10
Carbon Disulfide	U	U	U	5.0
Vinyl Acetate	U	U	U	10
1,1-Dichloroethene	U	U	U	5.0
1,1-Dichloroethane	U	U	U	5.0
1,2-Dichloroethene (total)	U	U	U	5.0
Chloroform	U	U	U	5.0
1,2-Dichloroethane	U	U	U	5.0
2-Butanone	U	U	U	10
1,1,1-Trichloroethane	U	U	U	5.0
Carbon Tetrachloride	U	U	U	5.0
Bromodichloromethane	U	U	U	5.0
1,2-Dichloropropane	U	U	U	5.0
cis-1,3-Dichloropropene	U	U	U	5.0
Trichloroethene	U	U	U	5.0
Dibromochloromethane	U	U	U	5.0
1,1,2-Trichloroethane	U	U	U	5.0
Benzene	U	U	U	5.0
trans-1,3-Dichloropropene	U	U	U	5.0
Bromoform	U	U	U	5.0
4-Methyl-2-Pentanone	U	U	U	10
2-Hexanone	U	U	U	10
Tetrachloroethene	U	U	U	5.0
Toluene	7	9	9	5.0
1,1,2,2-Tetrachloroethane	U	U	U	5.0
Chlorobenzene	U	U	U	5.0
Ethylbenzene	U	U	U	5.0
Styrene	U	U	U	5.0
Xylene (total)	U	U	U	5.0
Date Received	04/30/99	04/30/99	04/30/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	04/30/99	04/30/99	04/30/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE VO-1.2
7099-0979A
BLASLAND, BOUCK & LEE
TCL VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	TW-6 (2-4)			Quant. Limits with no Dilution
Lab Sample I.D.	990979A-06			
Method Blank I.D.	VBLKK1			
Quant. Factor	1.11			
Chloromethane	U			10
Bromomethane	U			10
Vinyl Chloride	U			10
Chloroethane	U			10
Methylene Chloride	U			5.0
Acetone	22B			10
Carbon Disulfide	U			5.0
Vinyl Acetate	U			10
1,1-Dichloroethene	U			5.0
1,1-Dichloroethane	U			5.0
1,2-Dichloroethene (total)	U			5.0
Chloroform	U			5.0
1,2-Dichloroethane	U			5.0
2-Butanone	U			10
1,1,1-Trichloroethane	U			5.0
Carbon Tetrachloride	U			5.0
Bromodichloromethane	U			5.0
1,2-Dichloropropane	U			5.0
cis-1,3-Dichloropropene	U			5.0
Trichloroethene	U			5.0
Dibromochloromethane	U			5.0
1,1,2-Trichloroethane	U			5.0
Benzene	U			5.0
trans-1,3-Dichloropropene	U			5.0
Bromoform	U			5.0
4-Methyl-2-Pentanone	U			10
2-Hexanone	U			10
Tetrachloroethene	U			5.0
Toluene	9			5.0
1,1,2,2-Tetrachloroethane	U			5.0
Chlorobenzene	U			5.0
Ethylbenzene	U			5.0
Styrene	U			5.0
Xylene (total)	U			5.0
Date Received	04/30/99			
Date Extracted	N/A			
Date Analyzed	04/30/99			

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE VO-1.3
7099-0979A
BLASLAND, BOUCK & LEE
TCL VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank VBLKKD VBLKKD 1.00	TW-1 (5 .5-7.5) FMS 990979A-01 FMS VBLKKD 1.14	TW-1 (5 .5-7.5) FMSD 990979A-01 FMSD VBLKKD 1.14	Quant. Limits with no Dilution
Chloromethane	U	62X	53X	10
Bromomethane	U	65X	58X	10
Vinyl Chloride	U	59X	51X	10
Chloroethane	U	48X	40X	10
Methylene Chloride	U	57X	56X	5.0
Acetone	5J	29BX	69BX	10
Carbon Disulfide	U	55X	52X	5.0
Vinyl Acetate	U	77X	60X	10
1,1-Dichloroethene	U	59X	55X	5.0
1,1-Dichloroethane	U	63X	59X	5.0
1,2-Dichloroethene (total)	U	120X	120X	5.0
Chloroform	U	66X	60X	5.0
1,2-Dichloroethane	U	57X	50X	5.0
2-Butanone	U	32X	88X	10
1,1,1-Trichloroethane	U	69X	59X	5.0
Carbon Tetrachloride	U	55X	82X	5.0
Bromodichloromethane	U	61X	62X	5.0
1,2-Dichloropropane	U	59X	57X	5.0
cis-1,3-Dichloropropene	U	55X	56X	5.0
Trichloroethene	U	63X	60X	5.0
Dibromochloromethane	U	59X	64X	5.0
1,1,2-Trichloroethane	U	57X	61X	5.0
Benzene	U	59X	46X	5.0
trans-1,3-Dichloropropene	U	54X	56X	5.0
Bromoform	U	64X	84X	5.0
4-Methyl-2-Pentanone	U	36X	83X	10
2-Hexanone	U	31X	93X	10
Tetrachloroethene	U	70X	74X	5.0
Toluene	U	65X	60X	5.0
1,1,2,2-Tetrachloroethane	U	45X	69X	5.0
Chlorobenzene	U	64X	60X	5.0
Ethylbenzene	U	63X	60X	5.0
Styrene	U	60X	58X	5.0
Xylene (total)	U	190X	180X	5.0
Date Received Date Extracted Date Analyzed	 N/A 05/04/99	04/30/99 N/A 05/04/99	04/30/99 N/A 05/04/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.0
7099-0979A
BLASLAND, BOUCK & LEE
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	TW-1 (5 .5-7.5)	TW-1 (5 .5-7.5) MS	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKUQ	990979A-01	990979A-01MS	
Method Blank I.D.	SBLKUQ	SBLKUQ	SBLKUQ	
Quant. Factor	1.00	1.16	1.16	
Phenol	U	U	2300X	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	2600X	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	1100X	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	1600X	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
Benzoic acid	U	19J	U	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	17J	330
1,2,4-Trichlorobenzene	U	U	1200X	330
Naphthalene	U	U	U	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	2600X	330
2-Methylnaphthalene	U	U	U	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	U	U	7J	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U	U	U	1600
Acenaphthene	U	U	1200X	330
Date Received		04/30/99	04/30/99	
Date Extracted	05/04/99	05/04/99	05/04/99	
Date Analyzed	05/14/99	05/19/99	05/19/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.0
7099-0979A
BLASLAND, BOUCK & LEE
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank SBLKUQ SBLKUQ 1.00	TW-1 (5 .5-7.5) 990979A-01 SBLKUQ 1.16	TW-1 (5 .5-7.5) MS 990979A-01MS SBLKUQ 1.16	Quant. Limits with no Dilution
2,4-Dinitrophenol	U	U	U	1600
4-Nitrophenol	U	U	3000X	1600
Dibenzofuran	U	U	U	330
2,4-Dinitrotoluene	U	U	1500X	330
Diethylphthalate	7J	7JB	7JB	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	U	U	U	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	3000X	1600
Phenanthrene	U	U	U	330
Anthracene	U	U	U	330
Carbazole	U	U	U	330
Di-n-butylphthalate	23J	26JB	21JB	330
Fluoranthene	U	U	4J	330
Pyrene	U	U	1300X	330
Butylbenzylphthalate	U	U	U	330
3,3'-Dichlorobenzidine	U	U	U	660
Benzo(a)anthracene	U	U	U	330
Chrysene	U	U	U	330
bis(2-Ethylhexyl)phthalate	30J	22JB	18JB	330
Di-n-octylphthalate	8J	14JB	17JB	330
Benzo(b)fluoranthene	U	U	U	330
Benzo(k)fluoranthene	U	U	U	330
Benzo(a)pyrene	U	U	U	330
Indeno(1,2,3-cd)pyrene	U	U	U	330
Dibenzo(a,h)anthracene	U	U	U	330
Benzo(g,h,i)perylene	U	U	U	330
Date Received		04/30/99	04/30/99	
Date Extracted	05/04/99	05/04/99	05/04/99	
Date Analyzed	05/14/99	05/19/99	05/19/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.1
7099-0979A
BLASLAND, BOUCK & LEE
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	TW-1 (5 .5-7.5) MSD	TW-2 (4-6)	TW-3 (4-6)	Quant. Limits with no Dilution
Lab Sample I.D.	990979A-01 MSD	990979A-02	990979A-03	
Method Blank I.D.	SBLKUQ	SBLKUQ	SBLKUQ	
Quant. Factor	1.16	1.10	1.12	
Phenol	2400X	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	2800X	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	1200X	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	1700X	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
Benzoic acid	U	U	U	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	18J	U	U	330
1,2,4-Trichlorobenzene	1300X	U	U	330
Naphthalene	U	U	U	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	2700X	U	U	330
2-Methylnaphthalene	U	U	U	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	6J	U	U	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U	U	U	1600
Acenaphthene	1200X	U	U	330
Date Received	04/30/99	04/30/99	04/30/99	
Date Extracted	05/04/99	05/04/99	05/04/99	
Date Analyzed	05/19/99	05/19/99	05/19/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.2
7099-0979A
BLASLAND, BOUCK & LEE
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	TW-4 (4-6)	TW-5 (4-6)	TW-6 (2-4)	Quant. Limits with no Dilution
Lab Sample I.D.	990979A-04	990979A-05	990979A-06	
Method Blank I.D.	SBLKUQ	SBLKUQ	SBLKUQ	
Quant. Factor	1.18	1.16	1.10	
2,4-Dinitrophenol	U	U	U	1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	U	U	U	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	9JB	9JB	6JB	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	U	U	U	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	U	U	U	330
Anthracene	U	U	U	330
Carbazole	U	U	U	330
Di-n-butylphthalate	24JB	27JB	21JB	330
Fluoranthene	U	U	U	330
Pyrene	U	U	U	330
Butylbenzylphthalate	U	U	U	330
3,3'-Dichlorobenzidine	U	U	U	660
Benzo(a)anthracene	U	U	U	330
Chrysene	U	U	U	330
bis(2-Ethylhexyl)phthalate	14JB	42JB	12JB	330
Di-n-octylphthalate	29JB	54JB	57JB	330
Benzo(b)fluoranthene	U	U	U	330
Benzo(k)fluoranthene	U	U	U	330
Benzo(a)pyrene	U	U	U	330
Indeno(1,2,3-cd)pyrene	U	U	U	330
Dibenzo(a,h)anthracene	U	U	U	330
Benzo(g,h,i)perylene	U	U	U	330
Date Received	04/30/99	04/30/99	04/30/99	
Date Extracted	05/04/99	05/04/99	05/04/99	
Date Analyzed	05/19/99	05/19/99	05/19/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE AS-1.0
7099-0979A
BLASLAND, BOUCK & LEE
TAL METALS

All values are mg/Kg dry weight basis.

Client Sample I.D.	TW-1 (5 .5-7.5)	TW-1 (5 .5-7.5) D	TW-1 (5 .5-7.5) S	TW-2 (4-6)
Lab Sample I.D.	990979A-01	990979A-01D	990979A-01S	990979A-02
Aluminum	3010	3330	4900	3080
Antimony	7.9U	10.6U	53.4	10.8U
Arsenic	1.4	2.2	8.8	2.0
Barium	26.2U	35.4U	297.	35.8U
Beryllium	0.66U	0.88U	8.4	0.90U
Cadmium	0.66U	0.88U	0.96	0.90U
Calcium	656.U	885.U	NR	896.U
Chromium	5.1	5.8	37.9	5.8
Cobalt	6.6U	8.8U	80.2	9.0U
Copper	4.0	4.4U	42.6	4.5U
Iron	5080	5300	5360	4820
Lead	2.9	3.3	6.6	2.6
Magnesium	784.	885.U	NR	896.U
Manganese	81.0	82.9	151.	51.8
Mercury	0.034U	0.024U	0.19	0.027U
Nickel	5.2U	7.1U	72.3	7.2U
Potassium	656.U	885.U	NR	896.U
Selenium	0.66U	0.88U	0.82	0.90U
Silver	1.3U	1.8U	6.7	1.8U
Sodium	656.U	885.U	NR	896.U
Thallium	1.3U	1.8U	7.0	1.8U
Vanadium	6.7	8.8U	86.5	9.0U
Zinc	21.8	15.2	89.5	15.7

See Appendix for qualifier definitions

TABLE AS-1.1
7099-0979A
BLASLAND, BOUCK & LEE
TAL METALS

Soil

All values are mg/Kg dry weight basis.

Client Sample I.D.	TW-3 (4-6)	TW-4 (4-6)	TW-5 (4-6)	TW-6 (2-4)
Lab Sample I.D.	990979A-03	990979A-04	990979A-05	990979A-06
Aluminum	2250	3230	1920	7470
Antimony	10.6U	12.0U	8.9U	10.3U
Arsenic	1.8U	2.6	1.5U	3.0
Barium	35.4U	39.9U	29.7U	45.7
Beryllium	0.88U	1.0U	0.74U	0.86U
Cadmium	0.88U	1.0U	0.74U	0.86U
Calcium	885.U	998.U	744.U	861.U
Chromium	4.2	5.4	4.0	8.8
Cobalt	8.8U	10.U	7.4U	8.6U
Copper	4.4U	5.0U	3.7U	4.3U
Iron	3800	5050	2530	8050
Lead	3.0	3.4	2.0	5.2
Magnesium	885.U	998.U	744.U	1120
Manganese	25.7	129.	31.4	240.
Mercury	0.022U	0.030U	0.030U	0.028U
Nickel	7.1U	8.0U	5.9U	6.9U
Potassium	885.U	998.U	744.U	861.U
Selenium	0.88U	1.4	0.74U	1.2
Silver	1.8U	2.0U	1.5U	1.7U
Sodium	885.U	998.U	744.U	861.U
Thallium	1.8U	2.0U	1.5U	1.7U
Vanadium	8.8U	10.U	7.4U	13.8
Zinc	20.9	16.8	8.4	25.2

See Appendix for qualifier definitions

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

TW-1 (5.5-7.5)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0979A SAS No.: _____ SDG No.: A0979

Matrix (soil/water): SOIL Lab Sample ID: 990979A-01

% Solids: 87.6 Date Received: 04/30/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.571	U	mg/Kg		L

Comments:

FORM I - WC

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

TW-2 (4-6)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0979A SAS No.: _____ SDG No.: A0979

Matrix (soil/water): SOIL Lab Sample ID: 990979A-02

% Solids: 91.5 Date Received: 04/30/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.531	U	mg/Kg		L

Comments:

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

TW-3 (4-6)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0979A SAS No.: _____ SDG No.: A0979

Matrix (soil/water): SOIL Lab Sample ID: 990979A-03

% Solids: 89 Date Received: 04/30/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.573	U	mg/Kg		L

Comments:

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

TW-4 (4-6)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0979A SAS No.: _____ SDG No.: A0979

Matrix (soil/water): SOIL Lab Sample ID: 990979A-04

% Solids: 83.5 Date Received: 04/30/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.576	U	mg/Kg		L

Comments:

FORM I - WC

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

TW-5 (4-6)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0979A SAS No.: _____ SDG No.: A0979

Matrix (soil/water): SOIL Lab Sample ID: 990979A-05

% Solids: 88.4 Date Received: 04/30/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.571	U	mg/Kg		L

Comments:

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

TW-6 (2-4)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0979A SAS No.: _____ SDG No.: A0979

Matrix (soil/water): SOIL Lab Sample ID: 990979A-06

% Solids: 90.1 Date Received: 04/30/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.528	U	mg/Kg		L

Comments:

FORM I - WC

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

DUPLICATE

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0979A SAS No.: _____ SDG No.: A0979

Matrix (soil/water): SOIL Lab Sample ID: 990979A-09

% Solids: 85 Date Received: 04/30/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.594	U	mg/Kg		L

Comments:

FORM I - WC

ORGANICS APPENDIX

U - Indicates that the compound was analyzed for but not detected.

J - Indicates that the compound was analyzed for and determined to be present in the sample. The mass spectrum of the compound meets the identification criteria of the method. The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.

B - This flag is used when the analyte is found in the blanks as well as the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of this analyte.

N - Indicates that the compound was analyzed for but not requested as an analyte. Value will not be listed on tabular result sheet.

S - Estimated due to surrogate outliers.

X - Matrix spike compound.

(1) - Cannot be separated.

(2) - Decomposes to azobenzene. Measured and calibrated as azobenzene.

A - This flag indicates that a TIC is a suspected aldol condensation product.

E - Indicates that it exceeds calibration curve range.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

C - Confirmed by GC/MS.

T - Compound present in TCLP blank.

P - This flag is used for a pesticide/aroclor target analyte when there is a greater than 25 percent difference for detected concentrations between the two GC columns (see Form X).

INORGANICS APPENDIX

C - Concentration qualifiers

U - Indicates analyte was not detected at method reporting limit.

B - Indicates analyte result between IDL and contract required detection limit (CRDL)

Q - QC qualifiers

E - Reported value is estimated because of the presence of interference

M - Duplicate injection precision not met

N - Spiked sample recovery not within control limits

S - The reported value was determined by the method of standard additions (MSA)

W - Post-digest spike recovery furnace analysis was out of 85-115 percent control limit, while sample absorbance was less than 50 percent of spike absorbance

* - Duplicate analysis not within control limit

+ - Correlation coefficient for MSA is less than 0.995

M - Method codes

P - ICP

A - Flame AA

F - Furnace AA

CV - Cold vapor AA (manual)

C - Cyanide

NR - Not Required

NC - Not Calculated as per protocols

Date Start/Finish: 4/27/99 / 4/27/99
Drilling Company: Mateco Drilling Co.
Driller's Name: Jim Priest
Drilling Method: Direct-Push

Rig Type: CME-45 Trailer Mount

Borehole Depth: 10 feet

Geologist: David Lay

Well No: TW-3

Client:
Danaher Corporation

Location:
Environmental Testing Systems, Inc.
Elkhart, Indiana

DEPTH / ELEVATION	Sample Number	Sample/Int/Type	Blows/6 in.	N	Recovery (ft.)	PID Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
									GROUND SURFACE	
	(0-2')		NA	NA	1.5	0.0/0.0			TOPSOIL with grass, rootlets (Top 2"). Brown fine to medium SAND, little Silt, trace coarse Sand, loose, moist.	1.5' diameter PVC casing (0-4.2' bgs).
	(2-4')		NA	NA	0.9	0.0/0.0				
5	(4-6')*		NA	NA	1.6	0.0/0.0			Wet at 5.8' bgs, iron oxide staining just above water table.	
	(6-8')		NA	NA	0.8	0.0/0.0				1.5' diameter hand-cut PVC screen (4.2-9.2').
	(8-10')		NA	NA	2.0	0.0/0.0			Brown medium SAND, little coarse Sand and Gravel, loose, wet.	
10									End of sampling at 10' bgs.	
									Installed as a temporary well. Abandoned after sampling, 4/28/99. Borehole backfilled with bentonite pellets.	
15										

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Remarks:
* Soil sample collected from 4-6' interval for laboratory analysis. ags/bgs - above/below ground surface. NA - Not available.

Saturated Zones

Date / Time	Elevation	Depth
4/28/99		5.81 ▼

Project: 307.38.020
File: TW-3.LOG
Script: 99nbbl
Date: 07/12/99

Date Start/Finish: 4/28/99 / 4/28/99
Drilling Company: Mateco Drilling Co.
Driller's Name: Jim Priest
Drilling Method: Direct-Push

Rig Type: CME-45 Trailer Mount

Borehole Depth: 10 feet

Geologist: David Lay

Well No: TW-4

Client:
Danaher Corporation

Location:
Environmental Testing Systems, Inc.
Elkhart, Indiana

DEPTH / ELEVATION	Sample Number	Sample/Int/Type	Blows/6 in.	N	Recovery (ft.)	PID Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
									GROUND SURFACE	
	(0-2')		NA	NA	2.0	0.0/0.0			TOPSOIL with grass, rootlets (Top 2"). Brown fine to medium SAND, little Silt, trace coarse Sand and Gravel loose, moist.	1.5" diameter PVC casing (0-4.1' bgs).
	(2-4')		NA	NA	1.3	0.0/0.0				
5	(4-6')*		NA	NA	2.0	0.0/0.0			Grades between wet at 5.5-6.0' bgs.	
	(6-8')		NA	NA	1.3	0.0/0.0			Brown coarse SAND and fine GRAVEL, little fine to medium Sand, loose, wet.	1.5" diameter hand-cut PVC screen (4.1-9.1').
	(8-10')		NA	NA	1.4	0.0/0.0			Brown medium SAND, little coarse Sand and Gravel, loose, wet.	
10									End of sampling at 10' bgs.	
									Installed as a temporary well. Abandoned after sampling, 4/28/99. Borehole backfilled with bentonite pellets.	
15										

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Remarks:
* Soil sample collected from 4-6 interval for laboratory analysis. ags/bgs - above/below ground surface. NA - Not available.

Saturated Zones

Date / Time	Elevation	Depth
4/28/99		5.00 ▼

Project: 307.38.020
File: TW-4.LOG
Script: 99nbbl
Date: 07/12/99

Date Start/Finish: 4/28/99 / 4/28/99
Drilling Company: Mateco Drilling Co.
Driller's Name: Jim Priest
Drilling Method: Direct-Push

Rig Type: CME-45 Trailer Mount

Borehole Depth: 10 feet

Geologist: David Lay

Well No: TW-5

Client:
Danaher Corporation

Location:
Environmental Testing Systems, Inc.
Elkhart, Indiana

DEPTH / ELEVATION	Sample Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
									GROUND SURFACE	
	(0-2')		NA	NA	1.6	0.0/0.0			Dark brown TOPSOIL with grass, rootlets (Top 2"). Brown fine to medium SAND, little Silt, and Gravel loose, moist.	1.5" diameter PVC casing (0-4.6' bgs).
	(2-4')		NA	NA	0.8	0.0/0.0				
5	(4-6')*		NA	NA	1.5	0.0/0.0			Grades between wet at 5.5-6.0' bgs.	
	(6-8')		NA	NA	0.9	0.0/0.0				1.5" diameter hand-cut PVC screen (4.6-9.6').
	(8-10')		NA	NA	1.3	0.0/0.0				
10									End of sampling at 10' bgs.	
									Installed as a temporary well. Abandoned after sampling, 4/28/99. Borehole backfilled with bentonite pellets.	
15										

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Remarks:
* Soil sample collected from 4-6' interval for laboratory analysis. ags/bgs - above/below ground surface. NA - Not available.

Saturated Zones

Date / Time	Elevation	Depth
4/28/99		5.10 ▼

Project: 307.38.020
File: TW-5.LOG
Script: 99nbbl
Date: 07/12/99

Date Start/Finish: 4/28/99 / 4/28/99
Drilling Company: Mateco Drilling Co.
Driller's Name: Jim Priest
Drilling Method: Direct-Push

Rig Type: CME-45 Trailer Mount

Borehole Depth: 10 feet

Geologist: David Lay

Well No: TW-6

Client:
Danaher Corporation

Location:
Environmental Testing Systems, Inc.
Elkhart, Indiana

DEPTH / ELEVATION	Sample Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
									GROUND SURFACE	
	(0-2')		NA	NA	1.6	0.0/0.0			Dark brown TOPSOIL (top 1"). Brown fine SAND and SILT, little medium Sand, wood particles, loose, moist.	1.5" diameter PVC casing (0-3.4' bgs).
	(2-4')*		NA	NA	0.9	0.0/0.0			Brown fine to medium SAND, little Silt, loose, moist.	
5	(4-6')		NA	NA	1.4	0.0/0.0			Wet at 6.0' bgs.	▼
	(6-8')		NA	NA	1.0	0.0/0.0				1.5" diameter hand-cut PVC screen (3.4-8.4').
	(8-10')		NA	NA	2.0	0.0/0.0			Brown medium SAND, trace Silt, loose, wet.	
10									End of sampling at 10' bgs.	
									Installed as a temporary well. Abandoned after sampling, 4/28/99. Borehole backfilled with bentonite pellets.	
15										

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Remarks:
* Soil sample collected from 2-4' interval for laboratory analysis. ags/bgs - above/below ground surface. NA - Not available.

Saturated Zones

Date / Time	Elevation	Depth
4/28/99		6.55 ▼

Project: 307.38.020
File: TW-6.LOG
Script: 99nbbl
Date: 07/12/99

Appendix B
Laboratory Analytical Data Sheets and Chain-of-Custody Forms

BLASLAND, BOUCK & LEE, INC.
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Committed To *Your* Success

May 20, 1999

Severn Trent Laboratories
200 Monroe Turnpike
Monroe CT 06468

Tel: (203) 261-4458
Fax: (203) 268-5346

Mr. David Lay
BLASLAND, BOUCK & LEE
6723 Towpath Road
Box 66
Syracuse, NY 13214

Dear Mr. Lay :

Please find enclosed the analytical results of 13 sample(s) received at our laboratory on April 30, 1999. This report contains sections addressing the following information at a minimum:

- sample summary
- analytical methodology
- state certifications
- definition of data qualifiers and terminology
- analytical results
- chain-of-custody

STL Report #7099-0979A	
Project ID: SOUTH BEND, IN	

Copies of this analytical report and supporting data are maintained in our files for a minimum of five years unless special arrangements have been made. Unless specifically indicated, all analytical testing was performed at this laboratory location and no portion of the testing was subcontracted.

We appreciate your selection of our services and welcome any questions or suggestions you may have relative to this report. Please contact your customer service representative at (203) 261-4458 for any additional information. Thank you for utilizing our services; we hope you will consider us for your future analytical needs.

I have reviewed and approved the enclosed data for final release.

Very truly yours,

Jeffrey C. Curran
Laboratory Manager

JCC

7099-0979A

BLASLAND, BOUCK & LEE

Case Narrative

Metals - ICAP metals were determined using a JA61E trace ICAP; mercury was determined by the cold vapor technique utilizing a Leeman Labs mercury analyzer using guidance provided in SW846 according to the following Methods: ICAP-3050/6010; mercury-7471.

No problems occurred during analysis. All appropriate protocols were employed. All data appears to be consistent.

Classical Chemistry - Listed below are the wet chemistry analyte methods and references for the samples analyzed in this SDG. No other analytical problems were encountered.

Analyte	Method	Reference
Cyanide-T	9012	1

References:

1. Test Methods for the Evaluation of Solid Wastes, SW846, 3rd ed., 1986.

Volatile Organics - Volatile organics were determined by purge and trap GC/MS using guidance provided in Method 8260B. The instrumentation used was a Tekmar Model 2000/2016 Concentrator interfaced with a Hewlett-Packard Model 5970A GC/MS/DS.

No problems were encountered.

Semi-Volatile Organics - Semi-volatile organic samples were extracted and analyzed by capillary GC/MS using guidance provided in Methods 3550/8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

All samples were extracted, concentrated and analyzed without any apparent problems.

TABLE VO-1.0
7099-0979A
BLASLAND, BOUCK & LEE
TCL VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	TW-1 (5 .5-7.5)	TW-2 (4-6)	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKK1	990979A-01	990979A-02	
Method Blank I.D.	VBLKK1	VBLKK1	VBLKK1	
Quant. Factor	1.00	1.14	1.09	
Chloromethane	U	U	U	10
Bromomethane	U	U	U	10
Vinyl Chloride	U	U	U	10
Chloroethane	U	U	U	10
Methylene Chloride	U	U	U	5.0
Acetone	5J	6JB	12B	10
Carbon Disulfide	U	U	U	5.0
Vinyl Acetate	U	U	U	10
1,1-Dichloroethene	U	U	U	5.0
1,1-Dichloroethane	U	U	U	5.0
1,2-Dichloroethene (total)	U	U	U	5.0
Chloroform	U	U	U	5.0
1,2-Dichloroethane	U	U	U	5.0
2-Butanone	U	U	U	10
1,1,1-Trichloroethane	U	U	U	5.0
Carbon Tetrachloride	U	U	U	5.0
Bromodichloromethane	U	U	U	5.0
1,2-Dichloropropane	U	U	U	5.0
cis-1,3-Dichloropropene	U	U	U	5.0
Trichloroethene	U	U	U	5.0
Dibromochloromethane	U	U	U	5.0
1,1,2-Trichloroethane	U	U	U	5.0
Benzene	U	U	U	5.0
trans-1,3-Dichloropropene	U	U	U	5.0
Bromoform	U	U	U	5.0
4-Methyl-2-Pentanone	U	U	U	10
2-Hexanone	U	U	U	10
Tetrachloroethene	U	U	U	5.0
Toluene	U	5J	6	5.0
1,1,2,2-Tetrachloroethane	U	U	U	5.0
Chlorobenzene	U	U	U	5.0
Ethylbenzene	U	U	U	5.0
Styrene	U	U	U	5.0
Xylene (total)	U	U	U	5.0
Date Received		04/30/99	04/30/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	04/30/99	04/30/99	04/30/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE VO-1.1
7099-0979A
BLASLAND, BOUCK & LEE
TCL VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	TW-3 (4-6)	TW-4 (4-6)	TW-5 (4-6)	
Lab Sample I.D.	990979A-03	990979A-04	990979A-05	Quant. Limits with no Dilution
Method Blank I.D.	VBLKK1	VBLKK1	VBLKK1	
Quant. Factor	1.14	1.20	1.18	
Chloromethane	U	U	U	10
Bromomethane	U	U	U	10
Vinyl Chloride	U	U	U	10
Chloroethane	U	U	U	10
Methylene Chloride	U	U	U	5.0
Acetone	14B	16B	17B	10
Carbon Disulfide	U	U	U	5.0
Vinyl Acetate	U	U	U	10
1,1-Dichloroethene	U	U	U	5.0
1,1-Dichloroethane	U	U	U	5.0
1,2-Dichloroethene (total)	U	U	U	5.0
Chloroform	U	U	U	5.0
1,2-Dichloroethane	U	U	U	5.0
2-Butanone	U	U	U	10
1,1,1-Trichloroethane	U	U	U	5.0
Carbon Tetrachloride	U	U	U	5.0
Bromodichloromethane	U	U	U	5.0
1,2-Dichloropropane	U	U	U	5.0
cis-1,3-Dichloropropene	U	U	U	5.0
Trichloroethene	U	U	U	5.0
Dibromochloromethane	U	U	U	5.0
1,1,2-Trichloroethane	U	U	U	5.0
Benzene	U	U	U	5.0
trans-1,3-Dichloropropene	U	U	U	5.0
Bromoform	U	U	U	5.0
4-Methyl-2-Pentanone	U	U	U	10
2-Hexanone	U	U	U	10
Tetrachloroethene	U	U	U	5.0
Toluene	7	9	9	5.0
1,1,2,2-Tetrachloroethane	U	U	U	5.0
Chlorobenzene	U	U	U	5.0
Ethylbenzene	U	U	U	5.0
Styrene	U	U	U	5.0
Xylene (total)	U	U	U	5.0
Date Received	04/30/99	04/30/99	04/30/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	04/30/99	04/30/99	04/30/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE VO-1.2
7099-0979A
BLASLAND, BOUCK & LEE
TCL VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	TW-6 (2-4)			Quant. Limits with no Dilution
Lab Sample I.D.	990979A-06			
Method Blank I.D.	VBLKK1			
Quant. Factor	1.11			
Chloromethane	U			10
Bromomethane	U			10
Vinyl Chloride	U			10
Chloroethane	U			10
Methylene Chloride	U			5.0
Acetone	22B			10
Carbon Disulfide	U			5.0
Vinyl Acetate	U			10
1,1-Dichloroethene	U			5.0
1,1-Dichloroethane	U			5.0
1,2-Dichloroethene (total)	U			5.0
Chloroform	U			5.0
1,2-Dichloroethane	U			5.0
2-Butanone	U			10
1,1,1-Trichloroethane	U			5.0
Carbon Tetrachloride	U			5.0
Bromodichloromethane	U			5.0
1,2-Dichloropropane	U			5.0
cis-1,3-Dichloropropene	U			5.0
Trichloroethene	U			5.0
Dibromochloromethane	U			5.0
1,1,2-Trichloroethane	U			5.0
Benzene	U			5.0
trans-1,3-Dichloropropene	U			5.0
Bromoform	U			5.0
4-Methyl-2-Pentanone	U			10
2-Hexanone	U			10
Tetrachloroethene	U			5.0
Toluene	9			5.0
1,1,2,2-Tetrachloroethane	U			5.0
Chlorobenzene	U			5.0
Ethylbenzene	U			5.0
Styrene	U			5.0
Xylene (total)	U			5.0
Date Received	04/30/99			
Date Extracted	N/A			
Date Analyzed	04/30/99			

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE VO-1.3
7099-0979A
BLASLAND, BOUCK & LEE
TCL VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	TW-1 (5 .5-7.5) FMS	TW-1 (5 .5-7.5) FMSD	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKD	990979A-01 FMS	990979A-01 FMSD	
Method Blank I.D.	VBLKKD	VBLKKD	VBLKKD	
Quant. Factor	1.00	1.14	1.14	
Chloromethane	U	62X	53X	10
Bromomethane	U	65X	58X	10
Vinyl Chloride	U	59X	51X	10
Chloroethane	U	48X	40X	10
Methylene Chloride	U	57X	56X	5.0
Acetone	5J	29BX	69BX	10
Carbon Disulfide	U	55X	52X	5.0
Vinyl Acetate	U	77X	60X	10
1,1-Dichloroethene	U	59X	55X	5.0
1,1-Dichloroethane	U	63X	59X	5.0
1,2-Dichloroethene (total)	U	120X	120X	5.0
Chloroform	U	66X	60X	5.0
1,2-Dichloroethane	U	57X	50X	5.0
2-Butanone	U	32X	88X	10
1,1,1-Trichloroethane	U	69X	59X	5.0
Carbon Tetrachloride	U	55X	82X	5.0
Bromodichloromethane	U	61X	62X	5.0
1,2-Dichloropropane	U	59X	57X	5.0
cis-1,3-Dichloropropene	U	55X	56X	5.0
Trichloroethene	U	63X	60X	5.0
Dibromochloromethane	U	59X	64X	5.0
1,1,2-Trichloroethane	U	57X	61X	5.0
Benzene	U	59X	46X	5.0
trans-1,3-Dichloropropene	U	54X	56X	5.0
Bromoform	U	64X	84X	5.0
4-Methyl-2-Pentanone	U	36X	83X	10
2-Hexanone	U	31X	93X	10
Tetrachloroethene	U	70X	74X	5.0
Toluene	U	65X	60X	5.0
1,1,2,2-Tetrachloroethane	U	45X	69X	5.0
Chlorobenzene	U	64X	60X	5.0
Ethylbenzene	U	63X	60X	5.0
Styrene	U	60X	58X	5.0
Xylene (total)	U	190X	180X	5.0
Date Received		04/30/99	04/30/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	05/04/99	05/04/99	05/04/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.0
7099-0979A
BLASLAND, BOUCK & LEE
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	TW-1 (5 .5-7.5)	TW-1 (5 .5-7.5) MS	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKUQ	990979A-01	990979A-01MS	
Method Blank I.D.	SBLKUQ	SBLKUQ	SBLKUQ	
Quant. Factor	1.00	1.16	1.16	
Phenol	U	U	2300X	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	2600X	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	1100X	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	1600X	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
Benzoic acid	U	19J	U	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	17J	330
1,2,4-Trichlorobenzene	U	U	1200X	330
Naphthalene	U	U	U	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	2600X	330
2-Methylnaphthalene	U	U	U	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	U	U	7J	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U	U	U	1600
Acenaphthene	U	U	1200X	330
Date Received		04/30/99	04/30/99	
Date Extracted	05/04/99	05/04/99	05/04/99	
Date Analyzed	05/14/99	05/19/99	05/19/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.0
7099-0979A
BLASLAND, BOUCK & LEE
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	TW-1 (5 .5-7.5)	TW-1 (5 .5-7.5) MS	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKUQ	990979A-01	990979A-01MS	
Method Blank I.D.	SBLKUQ	SBLKUQ	SBLKUQ	
Quant. Factor	1.00	1.16	1.16	
2,4-Dinitrophenol	U	U	U	1600
4-Nitrophenol	U	U	3000X	1600
Dibenzofuran	U	U	U	330
2,4-Dinitrotoluene	U	U	1500X	330
Diethylphthalate	7J	7JB	7JB	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	U	U	U	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	3000X	1600
Phenanthrene	U	U	U	330
Anthracene	U	U	U	330
Carbazole	U	U	U	330
Di-n-butylphthalate	23J	26JB	21JB	330
Fluoranthene	U	U	4J	330
Pyrene	U	U	1300X	330
Butylbenzylphthalate	U	U	U	330
3,3'-Dichlorobenzidine	U	U	U	660
Benzo(a)anthracene	U	U	U	330
Chrysene	U	U	U	330
bis(2-Ethylhexyl)phthalate	30J	22JB	18JB	330
Di-n-octylphthalate	8J	14JB	17JB	330
Benzo(b)fluoranthene	U	U	U	330
Benzo(k)fluoranthene	U	U	U	330
Benzo(a)pyrene	U	U	U	330
Indeno(1,2,3-cd)pyrene	U	U	U	330
Dibenzo(a,h)anthracene	U	U	U	330
Benzo(g,h,i)perylene	U	U	U	330
Date Received		04/30/99	04/30/99	
Date Extracted	05/04/99	05/04/99	05/04/99	
Date Analyzed	05/14/99	05/19/99	05/19/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.1
7099-0979A
BLASLAND, BOUCK & LEE
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	TW-1 (5 .5-7.5) MSD 990979A-01 MSD SBLKUQ 1.16	TW-2 (4-6) 990979A-02 SBLKUQ 1.10	TW-3 (4-6) 990979A-03 SBLKUQ 1.12	Quant. Limits with no Dilution
Phenol	2400X	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	2800X	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	1200X	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	1700X	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
Benzoic acid	U	U	U	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	18J	U	U	330
1,2,4-Trichlorobenzene	1300X	U	U	330
Naphthalene	U	U	U	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	2700X	U	U	330
2-Methylnaphthalene	U	U	U	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	6J	U	U	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U	U	U	1600
Acenaphthene	1200X	U	U	330
Date Received	04/30/99	04/30/99	04/30/99	
Date Extracted	05/04/99	05/04/99	05/04/99	
Date Analyzed	05/19/99	05/19/99	05/19/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.2
7099-0979A
BLASLAND, BOUCK & LEE
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	TW-4 (4-6)	TW-5 (4-6)	TW-6 (2-4)	Quant. Limits with no Dilution
Lab Sample I.D.	990979A-04	990979A-05	990979A-06	
Method Blank I.D.	SBLKUQ	SBLKUQ	SBLKUQ	
Quant. Factor	1.18	1.16	1.10	
2,4-Dinitrophenol	U	U	U	1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	U	U	U	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	9JB	9JB	6JB	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	U	U	U	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	U	U	U	330
Anthracene	U	U	U	330
Carbazole	U	U	U	330
Di-n-butylphthalate	24JB	27JB	21JB	330
Fluoranthene	U	U	U	330
Pyrene	U	U	U	330
Butylbenzylphthalate	U	U	U	330
3,3'-Dichlorobenzidine	U	U	U	660
Benzo(a)anthracene	U	U	U	330
Chrysene	U	U	U	330
bis(2-Ethylhexyl)phthalate	14JB	42JB	12JB	330
Di-n-octylphthalate	29JB	54JB	57JB	330
Benzo(b)fluoranthene	U	U	U	330
Benzo(k)fluoranthene	U	U	U	330
Benzo(a)pyrene	U	U	U	330
Indeno(1,2,3-cd)pyrene	U	U	U	330
Dibenzo(a,h)anthracene	U	U	U	330
Benzo(g,h,i)perylene	U	U	U	330
Date Received	04/30/99	04/30/99	04/30/99	
Date Extracted	05/04/99	05/04/99	05/04/99	
Date Analyzed	05/19/99	05/19/99	05/19/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE AS-1.0
7099-0979A
BLASLAND, BOUCK & LEE
TAL METALS

Soil

All values are mg/Kg dry weight basis.

Client Sample I.D.	TW-1 (5 .5-7.5)	TW-1 (5 .5-7.5) D	TW-1 (5 .5-7.5) S	TW-2 (4-6)
Lab Sample I.D.	990979A-01	990979A-01D	990979A-01S	990979A-02
Aluminum	3010	3330	4900	3080
Antimony	7.9U	10.6U	53.4	10.8U
Arsenic	1.4	2.2	8.8	2.0
Barium	26.2U	35.4U	297.	35.8U
Beryllium	0.66U	0.88U	8.4	0.90U
Cadmium	0.66U	0.88U	0.96	0.90U
Calcium	656.U	885.U	NR	896.U
Chromium	5.1	5.8	37.9	5.8
Cobalt	6.6U	8.8U	80.2	9.0U
Copper	4.0	4.4U	42.6	4.5U
Iron	5080	5300	5360	4820
Lead	2.9	3.3	6.6	2.6
Magnesium	784.	885.U	NR	896.U
Manganese	81.0	82.9	151.	51.8
Mercury	0.034U	0.024U	0.19	0.027U
Nickel	5.2U	7.1U	72.3	7.2U
Potassium	656.U	885.U	NR	896.U
Selenium	0.66U	0.88U	0.82	0.90U
Silver	1.3U	1.8U	6.7	1.8U
Sodium	656.U	885.U	NR	896.U
Thallium	1.3U	1.8U	7.0	1.8U
Vanadium	6.7	8.8U	86.5	9.0U
Zinc	21.8	15.2	89.5	15.7

See Appendix for qualifier definitions

TABLE AS-1.1
7099-0979A
BLASLAND, BOUCK & LEE
TAL METALS

All values are mg/Kg dry weight basis.

Client Sample I.D.	TW-3 (4-6)	TW-4 (4-6)	TW-5 (4-6)	TW-6 (2-4)
Lab Sample I.D.	990979A-03	990979A-04	990979A-05	990979A-06
Aluminum	2250	3230	1920	7470
Antimony	10.6U	12.0U	8.9U	10.3U
Arsenic	1.8U	2.6	1.5U	3.0
Barium	35.4U	39.9U	29.7U	45.7
Beryllium	0.88U	1.0U	0.74U	0.86U
Cadmium	0.88U	1.0U	0.74U	0.86U
Calcium	885.U	998.U	744.U	861.U
Chromium	4.2	5.4	4.0	8.8
Cobalt	8.8U	10.U	7.4U	8.6U
Copper	4.4U	5.0U	3.7U	4.3U
Iron	3800	5050	2530	8050
Lead	3.0	3.4	2.0	5.2
Magnesium	885.U	998.U	744.U	1120
Manganese	25.7	129.	31.4	240.
Mercury	0.022U	0.030U	0.030U	0.028U
Nickel	7.1U	8.0U	5.9U	6.9U
Potassium	885.U	998.U	744.U	861.U
Selenium	0.88U	1.4	0.74U	1.2
Silver	1.8U	2.0U	1.5U	1.7U
Sodium	885.U	998.U	744.U	861.U
Thallium	1.8U	2.0U	1.5U	1.7U
Vanadium	8.8U	10.U	7.4U	13.8
Zinc	20.9	16.8	8.4	25.2

See Appendix for qualifier definitions

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

TW-1 (5.5-7.5)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0979A SAS No.: _____ SDG No.: A0979

Matrix (soil/water): SOIL Lab Sample ID: 990979A-01

% Solids: 87.6 Date Received: 04/30/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.571	U	mg/Kg		L

Comments:

FORM I - WC

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

TW-2 (4-6)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0979A SAS No.: _____ SDG No.: A0979

Matrix (soil/water): SOIL Lab Sample ID: 990979A-02

% Solids: 91.5 Date Received: 04/30/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.531	U	mg/Kg		L

Comments:

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

TW-3 (4-6)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0979A SAS No.: _____ SDG No.: A0979

Matrix (soil/water): SOIL Lab Sample ID: 990979A-03

% Solids: 89 Date Received: 04/30/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.573	U	mg/Kg		L

Comments:

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

TW-4 (4-6)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0979A SAS No.: _____ SDG No.: A0979

Matrix (soil/water): SOIL Lab Sample ID: 990979A-04

% Solids: 83.5 Date Received: 04/30/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.576	U	mg/Kg		L

Comments:

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

TW-5 (4-6)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0979A SAS No.: _____ SDG No.: A0979

Matrix (soil/water): SOIL Lab Sample ID: 990979A-05

% Solids: 88.4 Date Received: 04/30/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.571	U	mg/Kg		L

Comments:

FORM I - WC

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

TW-6 (2-4)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0979A SAS No.: _____ SDG No.: A0979

Matrix (soil/water): SOIL Lab Sample ID: 990979A-06

% Solids: 90.1 Date Received: 04/30/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.528	U	mg/Kg		L

Comments:

1

SAMPLE NO.

WET CHEM ANALYSIS DATA SHEET

DUPLICATE

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0979A SAS No.: _____ SDG No.: A0979

Matrix (soil/water): SOIL Lab Sample ID: 990979A-09

% Solids: 85 Date Received: 04/30/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.594	U	mg/Kg		L

Comments:

FORM I - WC

ORGANICS APPENDIX

U - Indicates that the compound was analyzed for but not detected.

J - Indicates that the compound was analyzed for and determined to be present in the sample. The mass spectrum of the compound meets the identification criteria of the method. The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.

B - This flag is used when the analyte is found in the blanks as well as the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of this analyte.

N - Indicates that the compound was analyzed for but not requested as an analyte. Value will not be listed on tabular result sheet.

S - Estimated due to surrogate outliers.

X - Matrix spike compound.

(1) - Cannot be separated.

(2) - Decomposes to azobenzene. Measured and calibrated as azobenzene.

A - This flag indicates that a TIC is a suspected aldol condensation product.

E - Indicates that it exceeds calibration curve range.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

C - Confirmed by GC/MS.

T - Compound present in TCLP blank.

P - This flag is used for a pesticide/aroclor target analyte when there is a greater than 25 percent difference for detected concentrations between the two GC columns (see Form X).

INORGANICS APPENDIX

C - Concentration qualifiers

U - Indicates analyte was not detected at method reporting limit.

B - Indicates analyte result between IDL and contract required detection limit (CRDL)

Q - QC qualifiers

E - Reported value is estimated because of the presence of interference

M - Duplicate injection precision not met

N - Spiked sample recovery not within control limits

S - The reported value was determined by the method of standard additions (MSA)

W - Post-digest spike recovery furnace analysis was out of 85-115 percent control limit, while sample absorbance was less than 50 percent of spike absorbance

* - Duplicate analysis not within control limit

\+ - Correlation coefficient for MSA is less than 0.995

M - Method codes

P - ICP

A - Flame AA

F - Furnace AA

CV - Cold vapor AA (manual)

C - Cyanide

NR - Not Required

NC - Not Calculated as per protocols

STATE CERTIFICATIONS

In some instances it may be necessary for environmental data to be reported to a regulatory authority with reference to a certified laboratory. For your convenience, the laboratory identification numbers for Severn Trent Laboratories-Connecticut are provided in the following table. Many states certify laboratories for specific parameters or tests within a category (i.e. method 325.2 for wastewater). The information in the following table indicates the lab is certified in a general category of testing such as drinking water or wastewater analysis. The laboratory should be contacted directly if parameter-specific certification information is required.

Severn Trent-Connecticut
Certification Summary (as of March 1999)

State	Responsible Agency	Certification	Lab Number
Connecticut	Department of Health Services	Drinking Water, Wastewater	PH-0497
Kansas	Department of Health and Environment	Drinking Water, Wastewater/Solid, Hazardous Waste	E-10210
Maine	Department of Human Services	Wastewater	CT023
Massachusetts	Department of Environmental Protection	Potable/Non-Potable Water	CT023
New Hampshire	Department of Environmental Services	Drinking Water, Wastewater	2528
New Jersey	Department of Environmental Protection	Drinking Water, Wastewater	46410
New York	Department of Health	CLP, Drinking Water, Wastewater, Solid/ Hazardous Waste	10602
North Carolina	Division of Environmental Management	Wastewater Hazardous Waste	388
Oklahoma	Department of Environmental Quality	General Water Quality/ Sludge Testing	9614
Rhode Island	Department of Health	Chemistry...Non-Potable Water and Wastewater	A43
Washington	Department of Ecology	Wastewater/ Hazardous Waste	C231
Wisconsin	Department of Natural Resources	Wastewater/ Hazarous Waste	998355710

TABLE VO-1.4
7099-0980A
BLASLAND, BOUCK & LEE
TCL VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	TW-5			Quant. Limits with no Dilution
Lab Sample I.D.	990980A-05			
Method Blank I.D.	VBLKMX			
Quant. Factor	1.00			
Chloromethane	U			10
Bromomethane	U			10
Vinyl Chloride	U			10
Chloroethane	U			10
Methylene Chloride	U			5.0
Acetone	3uB			10
Carbon Disulfide	U			5.0
Vinyl Acetate	U			10
1,1-Dichloroethene	U			5.0
1,1-Dichloroethane	U			5.0
1,2-Dichloroethene (total)	U			5.0
Chloroform	U			5.0
1,2-Dichloroethane	U			5.0
2-Butanone	U			10
1,1,1-Trichloroethane	U			5.0
Carbon Tetrachloride	U			5.0
Bromodichloromethane	U			5.0
1,2-Dichloropropane	U			5.0
cis-1,3-Dichloropropene	U			5.0
Trichloroethene	U			5.0
Dibromochloromethane	U			5.0
1,1,2-Trichloroethane	U			5.0
Benzene	U			5.0
trans-1,3-Dichloropropene	U			5.0
Bromoform	U			5.0
4-Methyl-2-Pentanone	U			10
2-Hexanone	U			10
Tetrachloroethene	U			5.0
Toluene	U			5.0
1,1,2,2-Tetrachloroethane	U			5.0
Chlorobenzene	U			5.0
Ethylbenzene	U			5.0
Styrene	U			5.0
Xylene (total)	U			5.0
Date Received	04/30/99			
Date Extracted	N/A			
Date Analyzed	05/01/99			

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE VO-1.5
7099-0980A
BLASLAND, BOUCK & LEE
TCL VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	Method Blank	TW-2	TW-6	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKMY	990980A-02	990980A-06	
Method Blank I.D.	VBLKMY	VBLKMY	VBLKMY	
Quant. Factor	1.00	1.00	1.00	
Chloromethane	U	U	U	10
Bromomethane	U	U	U	10
Vinyl Chloride	U	U	U	10
Chloroethane	U	U	U	10
Methylene Chloride	U	U	U	5.0
Acetone	8J	U	U	10
Carbon Disulfide	U	U	U	5.0
Vinyl Acetate	U	U	U	10
1,1-Dichloroethene	U	U	U	5.0
1,1-Dichloroethane	U	U	U	5.0
1,2-Dichloroethene (total)	U	U	U	5.0
Chloroform	U	U	U	5.0
1,2-Dichloroethane	U	U	U	5.0
2-Butanone	U	U	U	10
1,1,1-Trichloroethane	U	U	U	5.0
Carbon Tetrachloride	U	U	U	5.0
Bromodichloromethane	U	U	U	5.0
1,2-Dichloropropane	U	U	U	5.0
cis-1,3-Dichloropropene	U	U	U	5.0
Trichloroethene	U	U	U	5.0
Dibromochloromethane	U	U	U	5.0
1,1,2-Trichloroethane	U	U	U	5.0
Benzene	U	U	U	5.0
trans-1,3-Dichloropropene	U	U	U	5.0
Bromoform	U	U	U	5.0
4-Methyl-2-Pentanone	U	U	U	10
2-Hexanone	U	U	U	10
Tetrachloroethene	U	U	U	5.0
Toluene	U	.4J	U	5.0
1,1,2,2-Tetrachloroethane	U	U	U	5.0
Chlorobenzene	U	U	U	5.0
Ethylbenzene	U	U	U	5.0
Styrene	U	U	U	5.0
Xylene (total)	U	U	U	5.0
Date Received		04/30/99	04/30/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	05/03/99	05/03/99	05/03/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE VO-1.2
7099-0980A
BLASLAND, BOUCK & LEE
TCL VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	DUPLICATE	TRIP BLANK		Quant. Limits with no Dilution
Lab Sample I.D.	990980A-09	990980A-10		
Method Blank I.D.	VBLKKA	VBLKKA		
Quant. Factor	1.00	1.00		
Chloromethane	U	U		10
Bromomethane	U	U		10
Vinyl Chloride	U	U		10
Chloroethane	U	U		10
Methylene Chloride	U	U		5.0
Acetone	U	U		10
Carbon Disulfide	U	U		5.0
Vinyl Acetate	U	U		10
1,1-Dichloroethene	U	U		5.0
1,1-Dichloroethane	U	U		5.0
1,2-Dichloroethene (total)	U	U		5.0
Chloroform	U	U		5.0
1,2-Dichloroethane	U	U		5.0
2-Butanone	U	U		10
1,1,1-Trichloroethane	U	U		5.0
Carbon Tetrachloride	U	U		5.0
Bromodichloromethane	U	U		5.0
1,2-Dichloropropane	U	U		5.0
cis-1,3-Dichloropropene	U	U		5.0
Trichloroethene	U	U		5.0
Dibromochloromethane	U	U		5.0
1,1,2-Trichloroethane	U	U		5.0
Benzene	U	U		5.0
trans-1,3-Dichloropropene	U	U		5.0
Bromoform	U	U		5.0
4-Methyl-2-Pentanone	U	U		10
2-Hexanone	U	U		10
Tetrachloroethene	U	U		5.0
Toluene	U	U		5.0
1,1,2,2-Tetrachloroethane	U	U		5.0
Chlorobenzene	U	U		5.0
Ethylbenzene	U	U		5.0
Styrene	U	U		5.0
Xylene (total)	U	U		5.0
Date Received	04/30/99	04/30/99		
Date Extracted	N/A	N/A		
Date Analyzed	05/04/99	05/04/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.3
7099-0980A
BLASLAND, BOUCK & LEE
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank SBLKSR SBLKSR 1.00	TW-1 990980A-01 SBLKSR 1.09	TW-2 990980A-02 SBLKSR 1.05	Quant. Limits with no Dilution
Phenol	U	.1J	U	10
bis(2-Chloroethyl)ether	U	U	U	10
2-Chlorophenol	U	U	U	10
1,3-Dichlorobenzene	U	U	U	10
1,4-Dichlorobenzene	U	U	U	10
Benzyl alcohol	U	U	U	10
1,2-Dichlorobenzene	U	U	U	10
2-Methylphenol	U	U	U	10
2,2'-oxybis(1-Chloropropane)	U	U	U	10
4-Methylphenol	U	U	U	10
N-Nitroso-di-n-propylamine	U	U	U	10
Hexachloroethane	U	U	U	10
Nitrobenzene	U	U	U	10
Isophorone	U	U	.1J	10
2-Nitrophenol	U	U	U	10
2,4-Dimethylphenol	U	U	U	10
Benzoic acid	U	.3J	U	50
bis(2-Chloroethoxy)methane	U	U	U	10
2,4-Dichlorophenol	U	U	U	10
1,2,4-Trichlorobenzene	U	U	U	10
Naphthalene	U	.1J	U	10
4-Chloroaniline	U	U	U	10
Hexachlorobutadiene	U	U	U	10
4-Chloro-3-methylphenol	U	U	U	10
2-Methylnaphthalene	U	.2J	U	10
Hexachlorocyclopentadiene	U	U	U	10
2,4,6-Trichlorophenol	U	U	U	10
2,4,5-Trichlorophenol	U	U	U	50
2-Chloronaphthalene	U	U	U	10
2-Nitroaniline	U	U	U	50
Dimethylphthalate	U	U	U	10
Acenaphthylene	U	U	U	10
2,6-Dinitrotoluene	U	U	U	10
3-Nitroaniline	U	U	U	50
Acenaphthene	U	U	U	10
Date Received		04/30/99	04/30/99	
Date Extracted	05/03/99	05/03/99	05/03/99	
Date Analyzed	05/08/99	05/08/99	05/08/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

All values are ug/L.

Client Sample I.D.	Method Blank	TW-1	TW-2	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKSR	990980A-01	990980A-02	
Method Blank I.D.	SBLKSR	SBLKSR	SBLKSR	
Quant. Factor	1.00	1.09	1.05	
2,4-Dinitrophenol	U	U	U	50
4-Nitrophenol	U	U	U	50
Dibenzofuran	U	U	U	10
2,4-Dinitrotoluene	U	U	U	10
Diethylphthalate	.4J	.2JB	.3JB	10
4-Chlorophenyl-phenylether	U	U	U	10
Fluorene	U	U	U	10
4-Nitroaniline	U	U	U	20
4,6-Dinitro-2-methylphenol	U	U	U	50
N-Nitrosodiphenylamine (1)	U	U	U	10
4-Bromophenyl-phenylether	U	U	U	10
Hexachlorobenzene	U	U	U	10
Pentachlorophenol	U	U	U	50
Phenanthrene	U	.09J	U	10
Anthracene	U	U	U	10
Carbazole	U	U	U	10
Di-n-butylphthalate	2J	.6JB	.3JB	10
Fluoranthene	U	U	U	10
Pyrene	U	U	U	10
Butylbenzylphthalate	.3J	U	U	10
3,3'-Dichlorobenzidine	U	U	U	20
Benzo(a)anthracene	U	U	U	10
Chrysene	U	U	U	10
bis(2-Ethylhexyl)phthalate	.2J	.1JB	.3JB	10
Di-n-octylphthalate	.1J	.1JB	.2JB	10
Benzo(b)fluoranthene	U	U	U	10
Benzo(k)fluoranthene	U	U	U	10
Benzo(a)pyrene	U	U	U	10
Indeno(1,2,3-cd)pyrene	U	U	U	10
Dibenzo(a,h)anthracene	U	U	U	10
Benzo(g,h,i)perylene	U	U	U	10
Date Received		04/30/99	04/30/99	
Date Extracted	05/03/99	05/03/99	05/03/99	
Date Analyzed	05/08/99	05/08/99	05/08/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.4
7099-0980A
BLASLAND, BOUCK & LEE
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	TW-4	TW-4 MS	TW-4 MSD	Quant. Limits with no Dilution
Lab Sample I.D.	990980A-04	990980A-04MS	990980A-04 MSD	
Method Blank I.D.	SBLKSR	SBLKSR	SBLKSR	
Quant. Factor	1.05	1.09	1.09	
Phenol	U	33X	32X	10
bis(2-Chloroethyl)ether	U	U	U	10
2-Chlorophenol	U	81X	75X	10
1,3-Dichlorobenzene	U	U	U	10
1,4-Dichlorobenzene	U	40X	37X	10
Benzyl alcohol	U	U	U	10
1,2-Dichlorobenzene	U	U	U	10
2-Methylphenol	U	U	U	10
2,2'-oxybis(1-Chloropropane)	U	U	U	10
4-Methylphenol	U	U	U	10
N-Nitroso-di-n-propylamine	U	51X	49X	10
Hexachloroethane	U	U	U	10
Nitrobenzene	U	U	U	10
Isophorone	.2J	U	U	10
2-Nitrophenol	U	U	U	10
2,4-Dimethylphenol	U	U	U	10
Benzoic acid	U	U	U	50
bis(2-Chloroethoxy)methane	U	U	U	10
2,4-Dichlorophenol	U	.3J	.3J	10
1,2,4-Trichlorobenzene	U	40X	36X	10
Naphthalene	U	U	U	10
4-Chloroaniline	U	U	U	10
Hexachlorobutadiene	U	U	U	10
4-Chloro-3-methylphenol	U	80X	77X	10
2-Methylnaphthalene	U	U	U	10
Hexachlorocyclopentadiene	U	U	U	10
2,4,6-Trichlorophenol	U	U	U	10
2,4,5-Trichlorophenol	U	U	U	50
2-Chloronaphthalene	U	U	U	10
2-Nitroaniline	U	U	U	50
Dimethylphthalate	U	U	U	10
Acenaphthylene	U	.2J	.2J	10
2,6-Dinitrotoluene	U	U	U	10
3-Nitroaniline	U	U	U	50
Acenaphthene	U	45X	42X	10
Date Received	04/30/99	04/30/99	04/30/99	
Date Extracted	05/03/99	05/03/99	05/03/99	
Date Analyzed	05/08/99	05/11/99	05/11/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.4
7099-0980A
BLASLAND, BOUCK & LEE
TCL SEMI-VOLATILE ORGANICS

All values are ug/L.

Client Sample I.D.	TW-4	TW-4 MS	TW-4 MSD	Quant. Limits with no Dilution
Lab Sample I.D.	990980A-04	990980A-04MS	990980A-04 MSD	
Method Blank I.D.	SBLKSR	SBLKSR	SBLKSR	
Quant. Factor	1.05	1.09	1.09	
2,4-Dinitrophenol	U	U	U	50
4-Nitrophenol	U	28JX	31JX	50
Dibenzofuran	U	U	U	10
2,4-Dinitrotoluene	U	45X	45X	10
Diethylphthalate	.1JB	.1JB	.1JB	10
4-Chlorophenyl-phenylether	U	U	U	10
Fluorene	U	U	U	10
4-Nitroaniline	U	U	U	20
4,6-Dinitro-2-methylphenol	U	U	U	50
N-Nitrosodiphenylamine (1)	U	U	U	10
4-Bromophenyl-phenylether	U	U	U	10
Hexachlorobenzene	U	U	U	10
Pentachlorophenol	U	100EX	98EX	50
Phenanthrene	U	U	U	10
Anthracene	U	U	U	10
Carbazole	U	U	U	10
Di-n-butylphthalate	.5JB	.3JB	.4JB	10
Fluoranthene	U	U	U	10
Pyrene	U	39X	36X	10
Butylbenzylphthalate	U	U	U	10
3,3'-Dichlorobenzidine	U	U	U	20
Benzo(a)anthracene	U	U	U	10
Chrysene	U	U	U	10
bis(2-Ethylhexyl)phthalate	.1JB	.2JB	.1JB	10
Di-n-octylphthalate	.4JB	.6JB	.4JB	10
Benzo(b)fluoranthene	U	U	U	10
Benzo(k)fluoranthene	U	U	U	10
Benzo(a)pyrene	U	U	U	10
Indeno(1,2,3-cd)pyrene	U	U	U	10
Dibenzo(a,h)anthracene	U	U	U	10
Benzo(g,h,i)perylene	U	U	U	10
Date Received	04/30/99	04/30/99	04/30/99	
Date Extracted	05/03/99	05/03/99	05/03/99	
Date Analyzed	05/08/99	05/11/99	05/11/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.1
7099-0980A
BLASLAND, BOUCK & LEE
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	TW-6	TW-7	TW-8	Quant. Limits with no Dilution
Lab Sample I.D.	990980A-06	990980A-07	990980A-08	
Method Blank I.D.	SBLKVR	SBLKVR	SBLKVR	
Quant. Factor	1.03	1.03	1.03	
Phenol	U	U	U	10
bis(2-Chloroethyl)ether	U	U	U	10
2-Chlorophenol	U	U	U	10
1,3-Dichlorobenzene	U	U	U	10
1,4-Dichlorobenzene	U	U	U	10
Benzyl alcohol	U	U	U	10
1,2-Dichlorobenzene	U	U	U	10
2-Methylphenol	U	U	U	10
2,2'-oxybis(1-Chloropropane)	U	U	U	10
4-Methylphenol	U	U	U	10
N-Nitroso-di-n-propylamine	U	U	U	10
Hexachloroethane	U	U	U	10
Nitrobenzene	U	U	U	10
Isophorone	.1J	1J	.09J	10
2-Nitrophenol	U	U	U	10
2,4-Dimethylphenol	U	U	U	10
Benzoic acid	.3J	.2J	.3J	50
bis(2-Chloroethoxy)methane	U	U	U	10
2,4-Dichlorophenol	U	U	U	10
1,2,4-Trichlorobenzene	U	U	U	10
Naphthalene	U	.03J	U	10
4-Chloroaniline	U	U	U	10
Hexachlorobutadiene	U	U	U	10
4-Chloro-3-methylphenol	U	U	U	10
2-Methylnaphthalene	U	U	U	10
Hexachlorocyclopentadiene	U	U	U	10
2,4,6-Trichlorophenol	U	U	U	10
2,4,5-Trichlorophenol	U	U	U	50
2-Chloronaphthalene	U	U	U	10
2-Nitroaniline	U	U	U	50
Dimethylphthalate	U	U	U	10
Acenaphthylene	U	U	U	10
2,6-Dinitrotoluene	U	U	U	10
3-Nitroaniline	U	U	U	50
Acenaphthene	U	U	U	10
Date Received	04/30/99	04/30/99	04/30/99	
Date Extracted	05/04/99	05/04/99	05/04/99	
Date Analyzed	05/07/99	05/07/99	05/07/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.1
7099-0980A
BLASLAND, BOUCK & LEE
TCL SEMI-VOLATILE ORGANICS

All values are ug/L.

Client Sample I.D.	TW-6	TW-7	TW-8	Quant. Limits with no Dilution
Lab Sample I.D.	990980A-06	990980A-07	990980A-08	
Method Blank I.D.	SBLKVR	SBLKVR	SBLKVR	
Quant. Factor	1.03	1.03	1.03	
2,4-Dinitrophenol	U	U	U	50
4-Nitrophenol	U	U	U	50
Dibenzofuran	U	U	U	10
2,4-Dinitrotoluene	U	U	U	10
Diethylphthalate	.2JB	.4JB	.5JB	10
4-Chlorophenyl-phenylether	U	U	U	10
Fluorene	U	U	U	10
4-Nitroaniline	U	U	U	20
4,6-Dinitro-2-methylphenol	U	U	U	50
N-Nitrosodiphenylamine (1)	U	U	U	10
4-Bromophenyl-phenylether	U	U	U	10
Hexachlorobenzene	U	U	U	10
Pentachlorophenol	U	U	U	50
Phenanthrene	U	U	U	10
Anthracene	U	U	U	10
Carbazole	U	U	U	10
Di-n-butylphthalate	.7JB	1JB	2JB	10
Fluoranthene	U	U	U	10
Pyrene	U	U	U	10
Butylbenzylphthalate	U	U	.1JB	10
3,3'-Dichlorobenzidine	U	U	U	20
Benzo(a)anthracene	U	U	U	10
Chrysene	U	U	U	10
bis(2-Ethylhexyl)phthalate	.3JB	.2JB	.4JB	10
Di-n-octylphthalate	.7JB	.8JB	.6JB	10
Benzo(b)fluoranthene	U	U	U	10
Benzo(k)fluoranthene	U	U	U	10
Benzo(a)pyrene	U	U	U	10
Indeno(1,2,3-cd)pyrene	U	U	U	10
Dibenzo(a,h)anthracene	U	U	U	10
Benzo(g,h,i)perylene	U	U	U	10
Date Received	04/30/99	04/30/99	04/30/99	
Date Extracted	05/04/99	05/04/99	05/04/99	
Date Analyzed	05/07/99	05/07/99	05/07/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.2
7099-0980A
BLASLAND, BOUCK & LEE
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	DUPLICATE			
Lab Sample I.D.	990980A-09			
Method Blank I.D.	SBLKVR			
Quant. Factor	1.04			
Phenol	U			10
bis(2-Chloroethyl)ether	U			10
2-Chlorophenol	U			10
1,3-Dichlorobenzene	U			10
1,4-Dichlorobenzene	U			10
Benzyl alcohol	U			10
1,2-Dichlorobenzene	U			10
2-Methylphenol	U			10
2,2'-oxybis(1-Chloropropane)	U			10
4-Methylphenol	U			10
N-Nitroso-di-n-propylamine	U			10
Hexachloroethane	U			10
Nitrobenzene	U			10
Isophorone	U			10
2-Nitrophenol	U			10
2,4-Dimethylphenol	U			10
Benzoic acid	2J			50
bis(2-Chloroethoxy)methane	U			10
2,4-Dichlorophenol	U			10
1,2,4-Trichlorobenzene	U			10
Naphthalene	U			10
4-Chloroaniline	U			10
Hexachlorobutadiene	U			10
4-Chloro-3-methylphenol	U			10
2-Methylnaphthalene	U			10
Hexachlorocyclopentadiene	U			10
2,4,6-Trichlorophenol	U			10
2,4,5-Trichlorophenol	U			50
2-Chloronaphthalene	U			10
2-Nitroaniline	U			50
Dimethylphthalate	U			10
Acenaphthylene	U			10
2,6-Dinitrotoluene	U			10
3-Nitroaniline	U			50
Acenaphthene	U			10
Date Received	04/30/99			
Date Extracted	05/04/99			
Date Analyzed	05/07/99			

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.2
7099-0980A
BLASLAND, BOUCK & LEE
TCL SEMI-VOLATILE ORGANICS

All values are ug/L.

Client Sample I.D.	DUPLICATE			
Lab Sample I.D.	990980A-09			
Method Blank I.D.	SBLKVR			
Quant. Factor	1.04			
2,4-Dinitrophenol	U			50
4-Nitrophenol	U			50
Dibenzofuran	U			10
2,4-Dinitrotoluene	U			10
Diethylphthalate	.4JB			10
4-Chlorophenyl-phenylether	U			10
Fluorene	U			10
4-Nitroaniline	U			20
4,6-Dinitro-2-methylphenol	U			50
N-Nitrosodiphenylamine (1)	U			10
4-Bromophenyl-phenylether	U			10
Hexachlorobenzene	U			10
Pentachlorophenol	U			50
Phenanthrene	U			10
Anthracene	U			10
Carbazole	U			10
Di-n-butylphthalate	3JB			10
Fluoranthene	U			10
Pyrene	U			10
Butylbenzylphthalate	.2JB			10
3,3'-Dichlorobenzidine	U			20
Benzo(a)anthracene	U			10
Chrysene	U			10
bis(2-Ethylhexyl)phthalate	.5JB			10
Di-n-octylphthalate	.6JB			10
Benzo(b)fluoranthene	U			10
Benzo(k)fluoranthene	U			10
Benzo(a)pyrene	U			10
Indeno(1,2,3-cd)pyrene	U			10
Dibenzo(a,h)anthracene	U			10
Benzo(g,h,i)perylene	U			10
Date Received	04/30/99			
Date Extracted	05/04/99			
Date Analyzed	05/07/99			

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE AS-1.0
7099-0980A
BLASLAND, BOUCK & LEE
TAL METALS

Aqueous

All values are ug/L.

Client Sample I.D.	TW-1	TW-2	TW-3	TW-4
Lab Sample I.D.	990980A-01	990980A-02	990980A-03	990980A-04
Aluminum	1060	3460	96600	3730
Antimony	60.0U	60.0U	60.0U	60.0U
Arsenic	10.0U	10.0U	106.	10.0U
Barium	200.U	200.U	532.	200.U
Beryllium	5.0U	5.0U	5.0U	5.0U
Cadmium	5.0U	5.0U	12.2	5.0U
Calcium	92700	95700	803000	90900
Chromium	23.8	10.0U	317.	10.0U
Cobalt	50.0U	50.0U	113.	50.0U
Copper	25.0U	25.0U	322.	25.0U
Iron	8820	6880	180000	6890
Lead	8.2	7.8	202.	8.2
Magnesium	26200	32800	406000	27000
Manganese	222.	229.	7900	513.
Mercury	0.20U	0.20U	0.58	0.20U
Nickel	40.0U	40.0U	235.	40.0U
Potassium	5000U	5000U	19800	5000U
Selenium	5.0U	5.0U	5.0U	5.0U
Silver	10.0U	10.0U	10.0U	10.0U
Sodium	33200	19600	29100	23400
Thallium	10.0U	10.0U	10.0U	10.0U
Vanadium	50.0U	50.0U	184.	50.0U
Zinc	50.5	26.2	653.	27.3

See Appendix for qualifier definitions

TABLE AS-1.1
7099-0980A
BLASLAND, BOUCK & LEE
TAL METALS

Aqueous

All values are ug/L.

Client Sample I.D.	TW-4 D	TW-4 S	TW-5	TW-6
Lab Sample I.D.	990980A-04D	990980A-04S	990980A-05	990980A-06
Aluminum	3530	5970	7420	2590
Antimony	60.0U	478.	60.0U	60.0U
Arsenic	10.0U	41.9	10.0U	10.0U
Barium	200.U	1910	200.U	200.U
Beryllium	5.0U	48.5	5.0U	5.0U
Cadmium	5.0U	5.7	5.0U	5.0U
Calcium	94200	NR	52200	43600
Chromium	10.0U	190.	11.5	10.0U
Cobalt	50.0U	481.	50.0U	50.0U
Copper	25.0U	245.	25.0U	25.0U
Iron	6990	7560	8330	3890
Lead	7.4	26.8	9.8	5.3
Magnesium	27700	NR	13400	16200
Manganese	519.	955.	542.	550.
Mercury	0.20U	0.90	0.20U	0.20U
Nickel	40.0U	447.	40.0U	40.0U
Potassium	5000U	NR	6870	5000U
Selenium	5.0U	5.0U	5.0U	5.0U
Silver	10.0U	49.5	10.0U	10.0U
Sodium	23700	NR	38500	20300
Thallium	10.0U	49.1	10.0U	10.0U
Vanadium	50.0U	477.	50.0U	50.0U
Zinc	26.9	484.	34.2	24.9

See Appendix for qualifier definitions

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

TW-1

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0980A SAS No.: _____ SDG No.: A0980

Matrix (soil/water): WATER Lab Sample ID: 990980A-01

% Solids: 0 Date Received: 04/30/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0100	U	mg/L		L

Comments:

FORM I - WC

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

TW-2

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0980A SAS No.: _____ SDG No.: A0980

Matrix (soil/water): WATER Lab Sample ID: 990980A-02

% Solids: 0 Date Received: 04/30/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0100	U	mg/L		L

Comments:

FORM I - WC

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

TW-3

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0980A SAS No.: _____ SDG No.: A0980

Matrix (soil/water): WATER Lab Sample ID: 990980A-03

% Solids: 0 Date Received: 04/30/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0100	U	mg/L		L

Comments:

FORM I - WC

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

TW-4

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0980A SAS No.: _____ SDG No.: A0980

Matrix (soil/water): WATER Lab Sample ID: 990980A-04

% Solids: 0 Date Received: 04/30/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0100	U	mg/L		L

Comments:

FORM I - WC

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

TW-5

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0980A SAS No.: _____ SDG No.: A0980

Matrix (soil/water): WATER Lab Sample ID: 990980A-05

% Solids: 0 Date Received: 04/30/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0100	U	mg/L		L

Comments:

FORM I - WC

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

TW-6

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0980A SAS No.: _____ SDG No.: A0980

Matrix (soil/water): WATER Lab Sample ID: 990980A-06

% Solids: 0 Date Received: 04/30/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0100	U	mg/L		L

Comments:

FORM I - WC

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

DUPLICATE

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0980A SAS No.: _____ SDG No.: A0980

Matrix (soil/water): WATER Lab Sample ID: 990980A-09

% Solids: 0 Date Received: 04/30/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0100	U	mg/L		L

Comments:

FORM I - WC

ORGANICS APPENDIX

U - Indicates that the compound was analyzed for but not detected.

J - Indicates that the compound was analyzed for and determined to be present in the sample. The mass spectrum of the compound meets the identification criteria of the method. The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.

B - This flag is used when the analyte is found in the blanks as well as the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of this analyte.

N - Indicates that the compound was analyzed for but not requested as an analyte. Value will not be listed on tabular result sheet.

S - Estimated due to surrogate outliers.

X - Matrix spike compound.

(1) - Cannot be separated.

(2) - Decomposes to azobenzene. Measured and calibrated as azobenzene.

A - This flag indicates that a TIC is a suspected aldol condensation product.

E - Indicates that it exceeds calibration curve range.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

C - Confirmed by GC/MS.

T - Compound present in TCLP blank

P - This flag is used for a pesticide/aroclor target analyte when there is a greater than 25 percent difference for detected concentrations between the two GC columns (see Form X).

INORGANICS APPENDIX

C - Concentration qualifiers

U - Indicates analyte was not detected at method reporting limit.

B - Indicates analyte result between IDL and contract required detection limit (CRDL)

Q - QC qualifiers

E - Reported value is estimated because of the presence of interference

M - Duplicate injection precision not met

N - Spiked sample recovery not within control limits

S - The reported value was determined by the method of standard additions (MSA)

W - Post-digest spike recovery furnace analysis was out of 85-115 percent control limit, while sample absorbance was less than 50 percent of spike absorbance

* - Duplicate analysis not within control limit

+ - Correlation coefficient for MSA is less than 0.995

M - Method codes

P - ICP

A - Flame AA

F - Furnace AA

CV - Cold vapor AA (manual)

C - Cyanide

NR - Not Required

NC - Not Calculated as per protocols

STATE CERTIFICATIONS

In some instances it may be necessary for environmental data to be reported to a regulatory authority with reference to a certified laboratory. For your convenience, the laboratory identification numbers for Severn Trent Laboratories-Connecticut are provided in the following table. Many states certify laboratories for specific parameters or tests within a category (i.e. method 325.2 for wastewater). The information in the following table indicates the lab is certified in a general category of testing such as drinking water or wastewater analysis. The laboratory should be contacted directly if parameter-specific certification information is required.

Severn Trent-Connecticut
Certification Summary (as of March 1999)

State	Responsible Agency	Certification	Lab Number
Connecticut	Department of Health Services	Drinking Water, Wastewater	PH 0497
Kansas	Department of Health and Environment	Drinking Water, Wastewater/Solid, Hazardous Waste	E-10210
Maine	Department of Human Services	Wastewater	CT023
Massachusetts	Department of Environmental Protection	Potable/Non-Potable Water	CT023
New Hampshire	Department of Environmental Services	Drinking Water, Wastewater	2528
New Jersey	Department of Environmental Protection	Drinking Water, Wastewater	46410
New York	Department of Health	CLP, Drinking Water, Wastewater, Solid/ Hazardous Waste	10602
North Carolina	Division of Environmental Management	Wastewater Hazardous Waste	388
Oklahoma	Department of Environmental Quality	General Water Quality/ Sludge Testing	9614
Rhode Island	Department of Health	Chemistry...Non-Potable Water and Wastewater	A43
Washington	Department of Ecology	Wastewater/ Hazardous Waste	C231
Wisconsin	Department of Natural Resources	Wastewater/ Hazarous Waste	998355710

7099-0980A
BLASLAND, BOUCK & LEE
SAMPLE SUMMARY

CLIENT ID	LAB ID	MATRIX	DATE COLLECTED	DATE RECEIVED
TW-1	990980A-01	WATER	04/27/99	04/30/99
TW-2	990980A-02	WATER	04/28/99	04/30/99
TW-3	990980A-03	WATER	04/28/99	04/30/99
TW-3	990980A-03MS	WATER	04/28/99	04/30/99
TW-3	990980A-03MSD	WATER	04/28/99	04/30/99
TW-4	990980A-04	WATER	04/28/99	04/30/99
TW-4	990980A-04D	WATER	04/28/99	04/30/99
TW-4	990980A-04MS	WATER	04/28/99	04/30/99
TW-4	990980A-04MSD	WATER	04/28/99	04/30/99
TW-4	990980A-04S	WATER	04/28/99	04/30/99
TW-5	990980A-05	WATER	04/28/99	04/30/99
TW-6	990980A-06	WATER	04/28/99	04/30/99
TW-7	990980A-07	WATER	04/28/99	04/30/99
TW-8	990980A-08	WATER	04/28/99	04/30/99
DUPLICATE	990980A-09	WATER	04/28/99	04/30/99
TRIP BLANK	990980A-10	WATER	04/28/99	04/30/99

IEA-CT ANALYTICAL SUMMARY

Client ID: DUPLICATE, TRIP BLANK, TW-1, TW-2, TW-3, TW-4, TW-5, TW-6, TW-7, TW-8
Job Number: 7099-0980A

Date: 5/14/99

Qty	Matrix	Analysis	Description
1	None	DISK	Diskette Prep
11	WATER	BNA-8270C-TCL	TCL Semi-Volatile Or
11	WATER	CNT-9012	Total Cyanide
11	WATER	MET-SW846-TAL	TAL Metals
12	WATER	VOA-8260B-TCL	TCL Volatile Organic

Severn Trent Laboratories
200 Monroe Turnpike
Monroe CT 06468
Tel: (203) 261-4458
Fax: (203) 268-5346

Dated To Your Success

CHAIN OF CUSTODY RECORD

PAGE 1 OF 3 | NO. Waters

JOB # 7099-980A
ATT: BB&L
PROJECT ID: SOUTH BEND
STL PROJECT MGR: P. HOBART
RUSH: ✓ YES | NO | DUE DATE

TESTS								GENERAL REMARKS
VOA	SVOC	TAL MTLS	TOTAL CN					
BOTTLE TYPE AND PRESERVATION								
40ml VOA	1L GL	500ml PL	500ml PL					
HCl	UNP	HNO_3	NaOH/ZnAc					

BOTTLE SET #	CLIENT SAMPLE ID	DATE / TIME SAMPLED	MATRIX	LAB ID	QC Y / N	FIELD FILTERED - CIRCLE Y or N								SAMPLE REMARKS
						Y / (N)	Y / (N)	Y / (N)	Y / (N)	Y / N	Y / N	Y / N	Y / N	
01	TW-1	4/27/99 / 1130	AQ	01		2	2	1	1					
02	TW-2	4/28/99 / 0645		02		2	2	1	1					
03	TW-3	4/28/99 / 0715		03		2	2	1	1					
04	TW-4+MS/MSD	4/28/99 / 1316		04		~~4~~ 4	~~5~~ 5	X2	X3					MS/MSD
05	TW-5	4/28/99 / 1700		05		2	2	1	1					
06	TW-6	4/28/99 / 1730		06		2	2	1	1					
07	TW-7	4/28/99 / 1800		07		2	2	1	1					
08	TW-8	4/28/99 / 1830		08		2	2	1	1					
09	DUPLICATE			09		2	2	1	1					
10	TRIP BLANK		↓	10		2	~~2~~	~~1~~	~~1~~ pH 4/30/99					

PASSED RAD SCREEN
by 11:30
04

MATRIX CODES

A	AIR	S	SOIL
AQ	AQUEOUS	SL	SLUDGE
C	COMPLEX	W	WIPE
D	DRUM WASTE	O	OTHER
OL	OIL	FB	FIELD BLANK
		TB	TRIP BLANK

BOTTLES PREPARED BY: Colleen Coelho — DATE / TIME: 04/23/99 16:00
SIGNATURE:

SAMPLES COLLECTED BY: DAVID LAM — DATE / TIME: 4/28/99 / 4/28
SIGNATURE:

BOTTLES REC'D BY: DAVID LAM — DATE / TIME: 4/26/99 / 1000
SIGNATURE:

RECEIVED IN LAB BY: — DATE / TIME: 4/30/99 / 1000
SIGNATURE:

REMARKS ON SAMPLE RECEIPT

☒ BOTTLES INTACT	☐ CUSTODY SEALS
☒ PRESERVED	☐ SEALS INTACT
☒ CHILLED	☐ SEE REMARKS

LABORATORY COPY

SEYFARTH SHAW LLP
ATTORNEYS

Exemption 4,
5 U.S.C. §552(b)(4)

Attachment D

Manufacturing Operations and Chemicals Used by ETS/Hach

SEYFARTH SHAW LLP
ATTORNEYS

Manufacturing Operations and Chemicals Used by ETS/Hach - Confidential Business Information

Exemption 4,
5 U.S.C. §552(b)(4)

SEYFARTH SHAW LLP
ATTORNEYS

Attachment E

Exemption 4,
5 U.S.C. §552(b)(4)

List of Chemicals

Confidential Business Information